III. HISTORY

Introduction

The project area is part of the Wilmington Boulevard Historic District, which in turn is a part of a "larger proposed district which encompasses the remaining archaeological and architectural remnants of eighteenth and early nineteenth century Wilmington" (National Register of Historic Places 1980). The area was largely intact until it was altered as part of an urban renewal project which began in the 1960s. It contained structures from all phases of Wilmington's development, including eighteenth century dwellings, nineteenth century commercial structures, and modern light industrial buildings. Many of the standing buildings had served various purposes throughout Wilmington's history, and preliminary studies indicated that the project area contained a broad range of the types of land use, structures, people, and activities which were present in Wilmington from its establishment until the closing decades of the nineteenth century.

The area cuts across early Wilmington's southwesterly side, encompassing the feet of King, Market, Shipley, Orange, Tatnall, West, Washington, and Justison streets as well as the southerly face of Lafayette Street and the Front Street end of Milner's Alley (see Figures 1 and 2). It includes parts of several areas which can be defined as occupational clusters. The area includes both low and high ground, and land uses ranging from light industry to primarily residential properties. The only kind of land use not included in the project area is heavy industry, which, however, borders the seven blocks. The area thus seemed to serve as a cross-section of Wilmington's social geography through at least the third quarter of the nineteenth century.

As stated earlier, the original research design, as presented in the Memorandum of Agreement with the Advisory Council on Historic Preservation, postulated three major periods in Wilmington's development (Appendix B). The first was a "Frontier" period lasting from the town's founding in the 1730s to about 1760. The second was a "Mercantile", or "Pre-Industrial" period, which occurred in the early years of the nineteenth century. The final period was the "Industrial" period dating up to the end of the nineteenth century. The hypotheses in the Research Perspective chapter do not address the "Frontier" period due to the lack of archaeological material in the project area from the period of the 1730s to the 1760s, and because historical research, discussed in this chapter, indicated that such a period did not occur in Wilmington. However, for the purposes of this chapter, we will present the hypotheses found in the Research Perspective chapter with the addition of hypotheses addressing the postulated "Frontier" period. In this manner, the reader will note that deleting this period as part of the city's development was done after considerable historical analysis.

The hypotheses to be tested with collected historical data have been discussed in the previous chapter. The remainder of this chapter presents the history of the city and the project area, and specifically addresses the validity of those hypotheses.

Sources and Sampling Strategy

We have approached this study on three levels: the general history of the city; the history of the project area; and the particular history of each block and of each excavation area. The researchers concentrated on data pertaining to land use and to the socio-economic level of the residents and directed their search towards those groups of documents which most directly related to land ownership and land use. These were deeds, directories, and the extremely detailed 1845 assessment. Certain other records, notably the special censuses, the city government records, and some nineteenth century anecdotal histories, provided valuable supplementary information. Additionally, one pre-1900 picture of a project area building turned up and several pictures of adjacent and probably similar areas were also located.

Most of the data necessary to develop geographical histories of Wilmington and of the project area were contained in the public land records housed at the Hall of Records in Dover. These include deed records and court records, which begin in the mid-seventeenth century. Beginning in early years of the nineteenth century, there were fairly thorough assessments at irregular but roughly 15-year intervals. Wilmington's 1845 assessment was particularly useful. It was the only assessment which gave both block face locations and descriptions of properties within Wilmington. Data for the project area only were gathered from this source.

The Historical Society of Delaware has nearly complete records of the city's government, from its first Borough charter through the nineteenth century. These records described public works and public problems such as sanitation, health, and animal control. Of particular interest were eighteenth and early nineteenth century "Street Regulations", tables of ascent and descent from street corner to street corner within the town. These permitted reconstruction of Wilmington's historic topography, which had some influence on settlement patterns as the city developed.

Both the Historical Society and the State Archives have city directories for the years 1814, 1845, and from 1853 to the present. These directories gave the name, address, occupation, sex, and through 1870, race, of each head of household at each discrete address, in alphabetical order by name. Directories published after 1884 were cross-indexed by address. There were also census records, which begin in 1800 for Delaware (1790 was lost and the reconstructions are not reliable). These proved less useful than the directories, as they did not list addresses. Special censuses, and particularly the industrial schedules, were useful in delineating changes in Wilmington's industrial base. The deed records proved to be especially useful. Until the middle of the nineteenth century, it was customary to include a great deal of biographical information on the parties involved in a property transaction in the legal record.

Preliminary data on the project area blocks suggested that the area was, at least until the last quarter of the nineteenth century, a sort of thin-section of the city's social geography. The area seemed to cut across several types of neighborhoods, with differing periods of development and showing differing types of land use. The researchers therefore decided to

sample the records in a way that was roughly analogous to the excavation strategy.

A thorough, year-by-year search of the deed records on the project area blocks produced continuous land histories of each block and socio-economic information about many of the landowners and some of the non-landowning residents. Information on property transactions across the whole city at ten-year intervals, and on records of land transactions outside the city involving Wilmington residents provided bases for comparison. The researchers used a 100 percent sample of the recorded deeds for the decennial years from 1740 through 1800, and a 50 percent sample for the decennial years from 1810 through 1860. After 1860, most valuable social information disappeared from the deed records but could be recovered from other sources. These samples produced a city-wide context of patterns of land ownership, use, and value which could be directly compared with the project area data. Additionally, the researchers analyzed random samples of approximately 250 directory entries in each of the years 1814, 1845, 1860, 1870, and 1890. The directory entries provided information on living patterns of people who did not own real estate and filled in gaps in social and some economic data which developed in the deed records around 1860.

Placement of individuals into socio-economic categories was largely based on the occupation of an individual. Using the above primary sources, an individual was placed into one of the occupational categories listed in Table 4. These categories are implicitly indicative of socio-economic level. For example, individuals in Category 1, upper level non-manual worker, which includes managers or proprietors of manufacturing or financial institutions, would be considered in the high socio-economic level group. Lower level workers would be in the lower socio-economic level category. These very general occupational and subsequent social position categories were based on work by Thernstrom (1974) and Hershberg and Dockhorn (1976). Appendix A lists all the specific occupations recovered from the sampling of the above primary sources, and indicates into which occupation categories each occupation type was placed for our socio-economic group analysis.

Table 4. Occupational Categories

1. Upper level non-manual workers
2. Lower level non-manual workers
3. Skilled manual workers
4. Semi-skilled manual workers
5. Lower level manual workers
6. Unemployed, unlisted, or unknown

Fluctuations in the real estate market within the project area provided another point of comparison between the city and the project area. Because the area was close to the Christina, it was possible that property values on

these blocks were exceptionally sensitive to the migration of Wilmington's economic base to the Brandywine and back again. In order to flag periods in which the project area might not be representative of the entire city, the factors of land area, land value, selling price, and frequency of sale within the area were compared with those of the whole city.

The data were gathered and collected in such a way as to permit comparisons both within a specific data set and with other related data sets. This project was designed around a Commodore (TM) microcomputer equipped with the JINSAM (TM) data base management and statistical program. While this system has some technicial limitations, it proved to be an efficient way to manage this fairly large data base.

Overview History of Wilmington

Settlement

The neck between the Brandywine and the Christina Creeks, where Wilmington lies, contains a sharp hill which marks the divide between the coastal plain and the piedmont (Figure 4). The town was sandwiched between the marshes on the east and the ridge on the west for most of its first hundred years. People chose to develop first not only the most commercially advantageous land but also that land which was most amenable to settlement (Figure 5).

The Delaware Bay region was initially settled by Dutch traders during the first quarter of the seventeenth century. The first Dutch settlements were limited to a short-lived whaling station at Zwaanendael, near the present Lewes, Delaware, and to a somewhat later fort and trading station near the present town of Salem, New Jersey. The whaling station, which was established in 1630, was destroyed within the year by hostile Indians. The Dutch did not attempt any more settlements on the Delaware side of the bay until the 1650s, although they were familiar with and explored the area (Scharf 1888).

Christinaham

The Dutch monopoly on Delaware Bay trading ended in 1638, when a band of Swedish settlers under the leadership of Peter Minuit established a community on the banks of the Christina River in the vicinity of present-day Wilmington. The Swedish colony was the brainchild of the Swedish king Gustavus Adolphus, but he died before colonizing actually began. His daughter and heir, Christina, under the guidance of her chief minister Axel Oxenstierna, continued her father's effort, although she approached colonization without much energy. The Swedish colony survived nevertheless, although it received virtually no support from its mother country (Hoffecker 1974:3; Munroe 1979:23-26).

The settlement, Christinaham, lay at the confluence of the Brandywine and the Christina Creeks, very near the mouth of the latter stream. This village was laid out around a fortification and seems to have been conceived as a town with outfarms, in the European manner (Figure 5). The Brandywine and Christina Creeks provided natural defenses, while the well-drained neck of

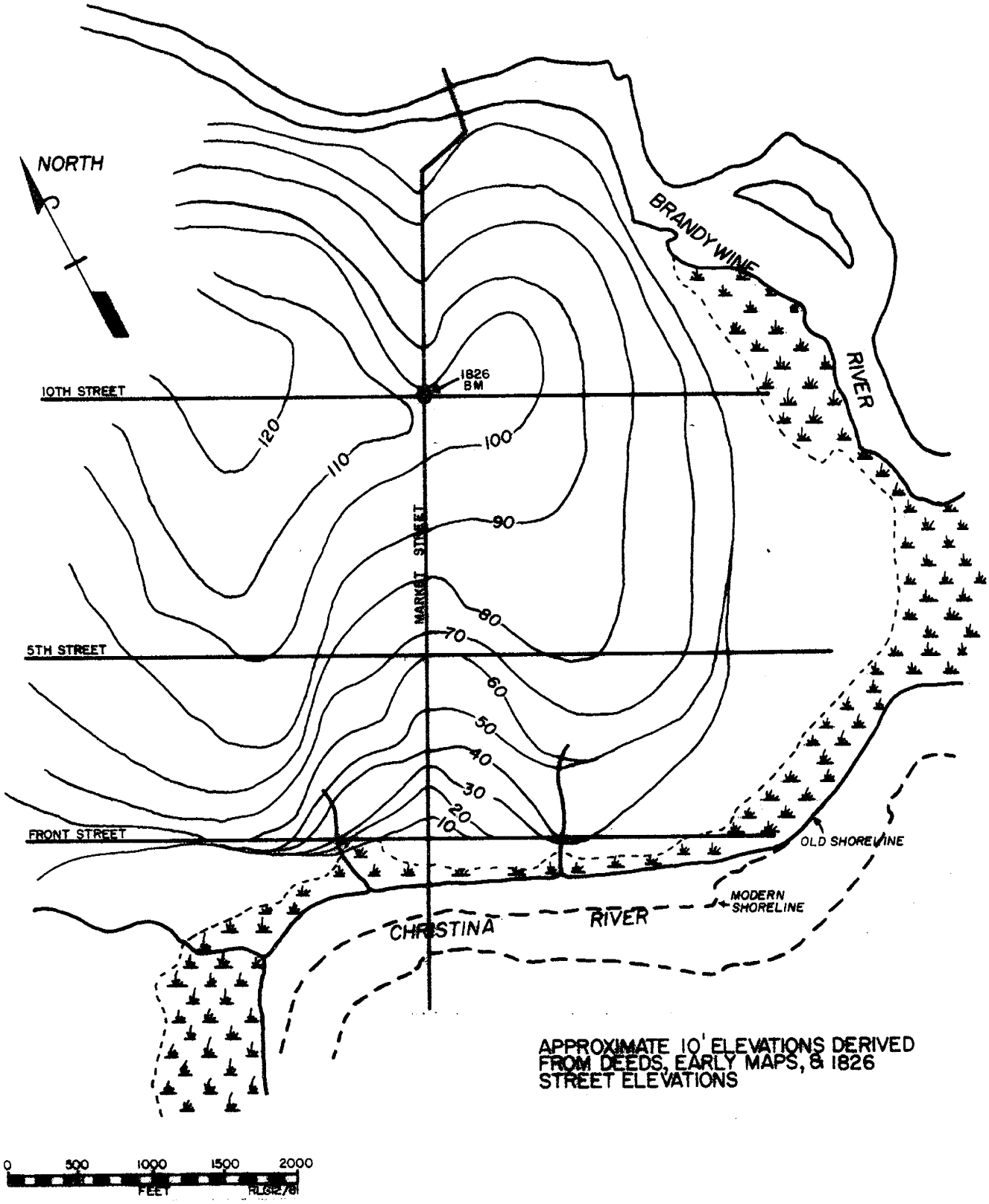


FIGURE 4
TOPOGRAPHY OF
EARLY WILMINGTON

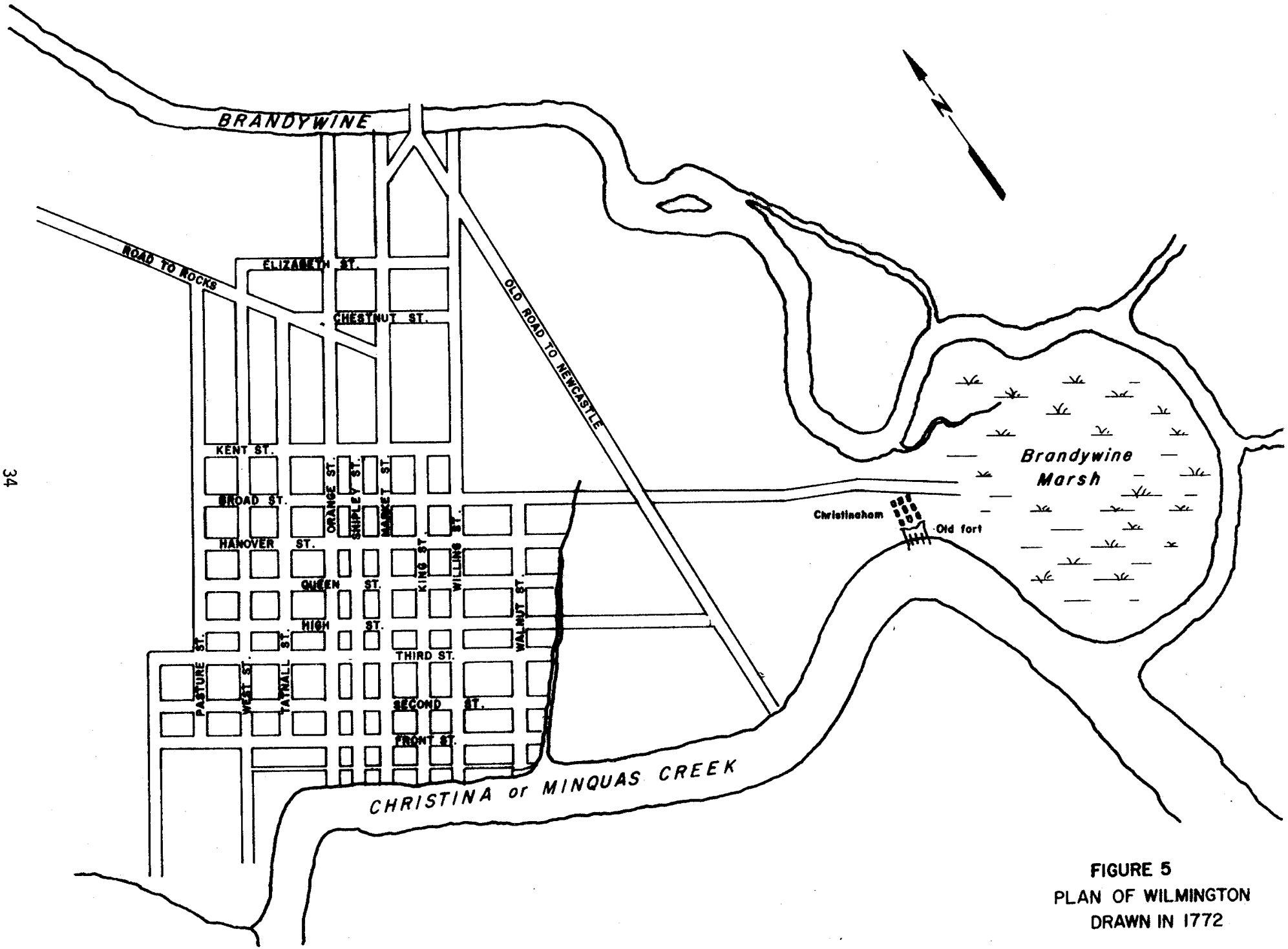


FIGURE 5
PLAN OF WILMINGTON
DRAWN IN 1772

land between them contained excellent rock-free farmland (Hoffecker 1977:15-19).

Although Christinaham lay well within the present-day boundaries of Wilmington, and is considered in the local folklore to have been the ancestor of the modern city, that ancestry is rather tenuous. The map of Christinaham has never been checked against land records, and the compact, gridded town may have existed only on paper.

The Dutch perceived the Christinaham colony as a threat to their control of the Delaware Bay. In 1651, the Dutch moved their main fortification on the Delaware from present-day New Jersey to the present site of New Castle, Delaware. In 1652 they laid out the town of New Amstel, ostensibly in order to allow closer monitoring of the Swedes, whom the Dutch suspected of draining off the fur trade (Gehring 1981:19, 40-41). The fur trade was probably dwindling as a result of natural depletion of the wildlife resources; the Swedish colony did not receive enough support to make effective trading competitors.

The Swedes captured the Dutch fort Casimir in 1653 without incident. The following year, Peter Stuyvesant not only recaptured the Dutch fort, but also took control of Christinaham, also without incident. The Swedish colonists were encouraged to stay, with the promise of religious toleration and confirmation in their land and property in exchange for political loyalty to the Dutch. Most stayed.

Dutch control lasted until 1663, when the English attacked the Dutch holdings in the New World as part of the Anglo-Dutch Wars. Shortly after New Amsterdam fell, the new owners dispatched a party to the Delaware to secure the colony, which quickly succumbed. The English offered generous terms of surrender to all settlers, including promises of religious toleration and confirmation of their landholdings.

A few years later, a group of Swedes rose in an abortive rebellion commonly called "The Long Finn's Rebellion", which had been incited by a recent immigrant who claimed to be the son of the Swedish hero General Konigsmark. The little rebellion was crushed almost as soon as it began, and the ringleaders were sent into servitude in the West Indies. Most of the local rebels received heavy fines, but remained in the colony (Heite 1978:38-40).

The Dutch, and later their English successors, usually favored the settlements at New Castle and Upland (near Philadelphia) over Christinaham as administrative centers. Fort Christina eventually fell to ruin, and by 1680, the town had lost much of its geographic identity. In 1699, the Swedish Lutheran congregation built a new church in the area of old Christinaham, which remained the center of a Swedish-speaking community for the next century (Hoffecker 1977:75).

By the 1680s, landholding patterns in the area had taken on the configuration of landholdings throughout the Delaware region; farms consisted of long, narrow tracts running across the necks from riverbank to riverbank, or from riverbank to the ridge between streams. Each neck constituted a kind of de facto political subdivision. This pattern also characterized the neck

between the Brandywine and the Christina. The compact settlement of European immigrants of the middle seventeenth century had been replaced by the time of Penn's grant (1682) by a dispersed rural settlement of mostly native-born residents with a common mixed ethnic heritage.

The Establishment of Willing Town

Penn's receipt of the Delaware counties in 1682 changed the orientation of the nearby countryside away from New Castle towards Philadelphia. Until 1682, New Castle had been the seat of administration as well as the port of entry for the Delaware colony, and most transportation arteries led towards that town. With the reorientation of the Three Lower Counties towards Philadelphia, the area around the lower ferry across the Christina took on new importance as part of the overland route from New Castle County to the new colonial capital. Water transportation, however, remained the main means of commerce between Philadelphia and the counties on the lower Delaware (Scharf 1888).

The first third of the eighteenth century saw rapid growth in the number of compact settlements in Delaware and the development of an effective internal road system, as well as an end to the patenting of ungranted good land in the colony. Ungranted land in the Three Lower Counties virtually disappeared after about 1735. Between five and ten towns were either deliberately established or appeared spontaneously along the main north-south road through Delaware, which skirts the coastal marshlands. Several of these towns were located in areas that had had some form of community identity during the previous century. In most cases, including Wilmington's, the new towns did not occupy the identical physical space or follow the same configuration as the earlier town, but were essentially new communities. Wilmington, in fact, was established a short distance upstream from the Christinaham settlement (Scharf 1888).

Wilmington began as the effort of a New Castle County farmer named Andrew Justison, a descendant of the Swedish settlers. He traded his farm in 1727 for another farm which he apparently thought was more advantageously situated, and divided the land along the Christina River bank into tracts of approximately four acres each (Figure 6). In 1735, there were at least six investors in this venture, including Justison, his sons-in-law Thomas Willing and Samuel Scott; Charles Empson; Dr. James Milner; and Joseph Way. Empson was a mariner; he owned only a small landholding immediately along the river where there were warehouses. Scott dropped out of the records very early, and may have died during the first years of Wilmington's development (New Castle County Recorder of Deeds 1727-1860).

A nineteenth century legend attributes the establishment of Willing Town to Elizabeth Shipley, the Quaker missionary wife of a wealthy Pennsylvanian. She is supposed to have dreamed of a city upon a hill, lying between two rivers (Hoffecker 1974:4). Whatever the specifics of Mrs. Shipley's dream and the family's decision to move to Wilmington, the description of Wilmington's geography is accurate, and William Shipley was instrumental in guiding the town's early growth.

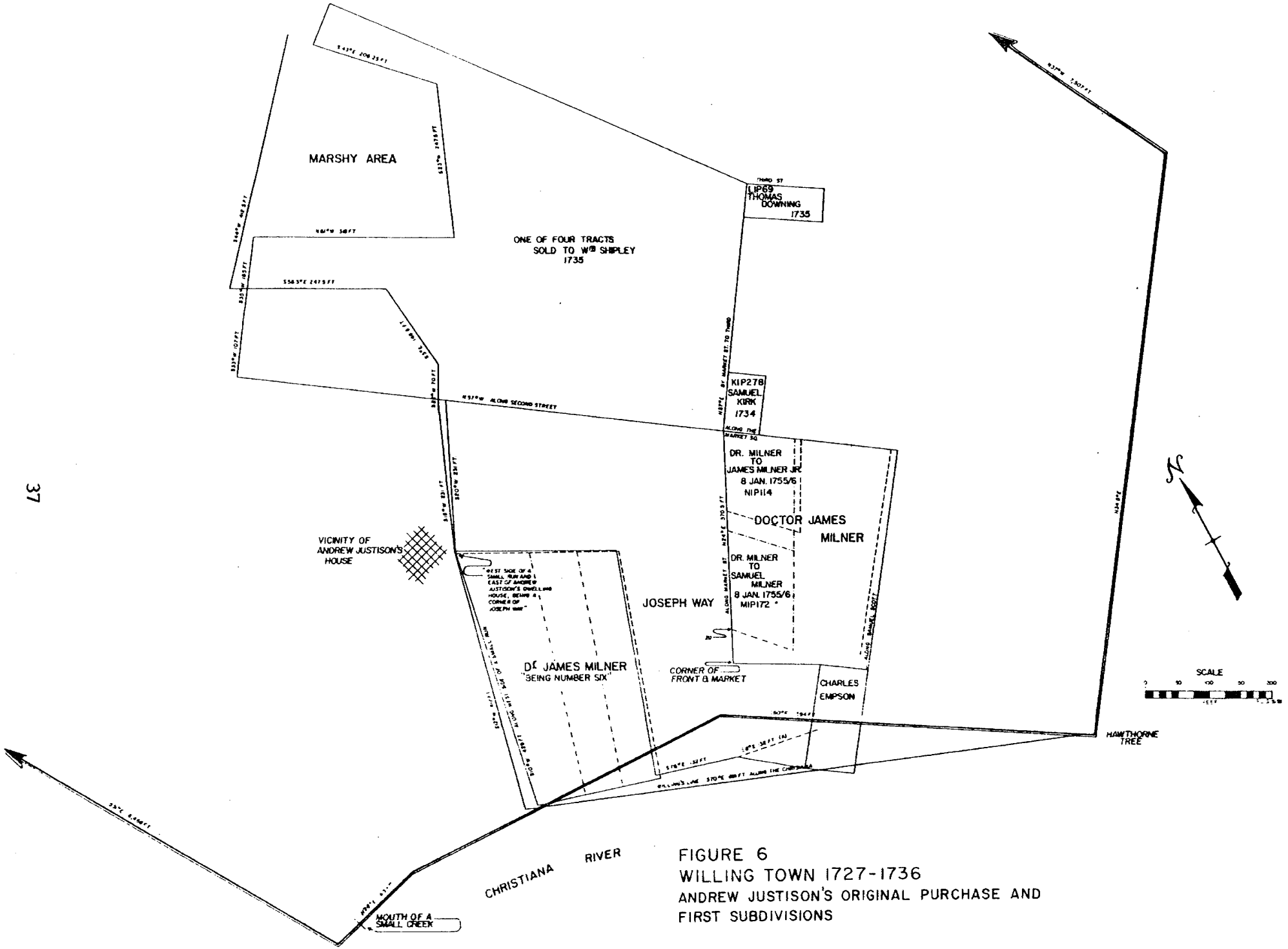


FIGURE 6
WILLING TOWN 1727-1736
ANDREW JUSTISON'S ORIGINAL PURCHASE AND
FIRST SUBDIVISIONS

The Colonial Borough

Wilmington received its charter as a borough in 1740. During the next several decades, the village served primarily as a market center for much of the surrounding countryside. Small craft manufacturing businesses appeared, which evidently served local needs. These skilled craftsmen included harness makers, weavers, potters, and shipbuilders, and by 1760, the first tannery had been established.

Wilmington's founding must be understood in the context of the expansion of Philadelphia's hinterland and the growth of wheat exports, which supported the economic prosperity of this area. The key role of Philadelphians in establishing the town is obvious, and like other county towns in Philadelphia's backcountry, Wilmington functioned as a nodal central place "next in rank to Philadelphia" (Lemon 1972:140). Down to the Revolution, Philadelphia and its merchants dominated the wheat export trade in this area. Increased European demand for wheat after 1700 stimulated colonial American wheat production by fostering exploitation of new lands and hence town-founding and by encouraging diversification of tobacco plantations to include wheat in the northern Tidewater and on the Eastern Shore (Land 1965; Clemens 1980). Wheat production eventually supplanted tobacco production on some plantations, and in general, the transformation of the older tobacco-based commercial agriculture into a diversified, primarily wheat-based system resulted in a reorientation of the northern Chesapeake and Eastern Shore toward Philadelphia and the Middle Colonies. As a result, towns such as Wilmington on the Delmarva Peninsula were in a position to reap the benefits of a geographically large base of supply. Unlike the tobacco trade, which had a centralized system of marketing in Europe, marketing of colonial American grain was decentralized in Europe, which encouraged the growth of Philadelphia as a focus for the commerce. During the Revolution, however, Wilmington's grain merchants took advantage of restrictions on the Philadelphia grain trade to secure contracts to provision the Continental Army and to enter the European grain market from a position that was more competitive with Philadelphia's than it had been prior to this time (Warner 1968:39).

By the time of the Revolution, Wilmington boasted wide streets, an ambitious town plan, at least one school, two market houses, and a fire engine. A brief occupation by the British in 1776 resulted in a temporary suspension of government during that year. The war itself, however, flowed to the west and north of the city.

Beginnings of Industrialization

The Borough Council passed its first formal budget in the 1790s and by 1798, the town built a town hall. Civic problems such as drainage and utilities had begun to attract public attention. During the last decade of the eighteenth century, the rich power potential of the Brandywine River north of Wilmington was extensively developed. First flour mills, and later paper, textile, and gunpowder factories were built along the Brandywine. Although these mills and factories were not located within Wilmington, they gave Wilmington and the nearby countryside an early entry into the industrial world (Scharf 1888).

New institutions arose to meet the demands of the growing city. Wilmington was home to Delaware's first poor house, which was built in 1786 on the western edge of town. Yellow fever epidemics in 1798 brought about the establishment of a Board of Health and stimulated interest in municipal water and sewer services. An influx of immigrants into the city after the end of the Revolution stirred a weak effort to establish housing standards by forbidding the use of stables as dwellings (Scharf 1888).

Before the turn of the nineteenth century, the Borough of Wilmington was Delaware's largest city. The civic leaders were interested in acquiring a new charter as a city with some home-rule provisions, but statewide political considerations postponed Wilmington's rechartering until 1832. There was also local interest in moving the county seat to Wilmington from its original location in New Castle. Many people outside of the immediate Wilmington area were opposed to that move, however, so county government remained at New Castle until after the Civil War (Scharf 1888, Munroe 1979).

Wilmington's location and its long-term affinity with the Society of Friends made it an important center for free blacks during the years between the Revolution and the Civil War. In 1812, the city's free black community formed the AUME Church (Hoffecker 1974:75-76). Throughout the nineteenth century until the Civil War, Wilmington was a center of Abolitionist activity, in sharp contrast to many of the agricultural areas of the rest of Delaware. White support for the black community continued after the Civil War, resulting in the establishment of the first black high school in the state.

The Railroad

The arrival of the railroad in 1837 brought further prosperity and another change in the city's shape and economic base. The PB&W Railroad followed the north bank of the Christina at Wilmington. The railroad tied Wilmington to distant cities both to the north and to the south, and gave Wilmington's industries access to sources and markets throughout the nation. For the first time, heavy industry moved into the city's core, displacing the languishing mercantile facilities along the Christina. An industrial zone housing such heavy industries as iron shipbuilding, railroad car manufacture, and boiler making grew up in the narrow strip between the tracks and the river.

The Civil War and Afterwards

In 1860, Wilmington, with its Abolitionist tradition and its strategic manufacturing industries, was a northern industrial city in an otherwise southern-leaning, agrarian state. The Republican city dominated New Castle County's politics, but the rest of Delaware was strongly Democratic. During the Civil War, most Wilmingtonians supported the Union even as other Delawareans slipped across the Chesapeake to fight for the Southern cause (Scharf 1888, Hoffecker 1974).

Wilmington's industries reached their peak in the years following the Civil War. Wilmington-built railroad cars could be found in such places as Brazil and Manchuria. The railroad and steamship industries together employed more

than half of Wilmington's available labor force in 1880 (Scharf 1888, Hoffecker 1974).

The fourth quarter of the nineteenth century saw the development of many of modern Wilmington's physical and social characteristics. The city had had a horse car line since shortly after the Civil War, but by the end of the century it had an effective street railway system. Public demand finally brought about the establishment of a municipal sewer system. Public amenities such as parks, water fountains, and monuments graced the city's streets and provided the opportunity for civic boasting (Scharf 1888, Hoffecker 1974).

Wilmington remained a physically small city until nearly the end of the nineteenth century. The first attempts at deliberate suburban development took place in the late 1860s, with the laying out of "Washington Village". This development failed, but in the next decade, Wilmington's major suburban avenues, Delaware and Pennsylvania Avenues, grew up with large, elaborate homes. At that time, however, there was a major refocusing of Wilmington's neighborhoods, and the city took on a configuration which changed little until the advent of urban renewal in the middle twentieth century (Scharf 1888, Hoffecker 1974).

Brandywine Village

The history of Wilmington cannot be adequately assessed without mention of Brandywine Village. This little town developed as an industrial satellite, nearly adjacent to Wilmington's northern edge. It grew up a little later than did the larger settlement, in response to nascent industrial development on the Brandywine in the middle of the eighteenth century. It functioned as an industrial suburb to Wilmington through much of the nineteenth century, which remained the main market center for the countryside. The two retained separate identities until the mid-nineteenth century, when Wilmington annexed its smaller neighbor (Scharf 1888, Hoffecker 1974).

The presence of this adjacent town across the Brandywine distorted the pattern of Wilmington's growth somewhat. Certain industrial and residential factors that belong in an analysis of the Wilmington metropolitan area drop from the picture because they did not occur within the political boundaries of Wilmington. No effort has been made to correct for this distortion, for a complementary analysis of Brandywine Village was well beyond the range of this study.

The Frontier and Mercantile Periods

Settlement and Land Use

The earliest settlement at Willing Town was a small T-shaped cluster of houses and commercial buildings near the foot of Market Street. It extended along Front and Second Streets for about three blocks either side of Market, and up the latter street for about six blocks. The development along Market Street seems to have been at least partly the result of an effort by William Shipley and the congregation of Trinity Church to draw settlement up the hill. Neither the Brandywine nor the Christiana Bridge had been built at

that time, which limited Market Street's utility as a transportation artery. Within Willing Town, there were boat landings to the east of Market Street, and the main road seems to have run from the ferry at "The Rocks" to a ford across the Brandywine above the falls (New Castle County Recorder of Deeds 1727-1860).

The occupied part of the Borough of Wilmington did not expand much beyond the area delineated in the 1736 map until about 1800. Before the Revolution, the occupied area was limited to the part of town below Seventh Street and bounded by Tatnall and Walnut Streets. By 1800, this area had extended to about Ninth or Tenth Street, but had not grown noticeably to either the east or the west. As late as the turn of the nineteenth century, Market Street, between about Tenth Street and the Brandywine, was open to pedestrian traffic only and was called Brandywine Walk.

The town map which was required by the charter does not seem to have survived. It may be the "Plan of Willing Town 1736" (Figure 7), but there is some internal evidence that that map relates to an earlier controversy over the location of the town's market place. The 1736 map does show that Wilmington's original street grid provided the heart of the grid pattern which exists to this day. Moreover, while the town grew towards the Brandywine, the eastern and western boundaries as indicated on the 1736 map were effectively the limits of settlement as late as the second quarter of the nineteenth century. Central Wilmington's streets were evidently laid out essentially in their present alignment by at least 1736.

Each borough rechartering and each major alteration of the streets required the preparation of a new town plan. A plan for realignment of Third Street in 1783 was the first of these exercises. It shows that most of the streets between Washington and Church Streets and between Water and Tenth Streets had been laid out. Nonetheless, borough minutes reveal that the northerly ends of Orange, King, and Walnut Streets and the westerly ends of Front through at least Fourth Streets were not open beyond Justison on the West and Pine on the East at that time.

Although not all the town's streets were open, Wilmington's leaders went to some lengths to insure that the grid was maintained. As inhabitants built houses, streets were plowed, graded, and opened. Still, Wilmington was a compact little town, not more than about one mile long by about a half-mile wide even as late as the turn of the nineteenth century.

By 1735, Willing Town had failed to attract new investors beyond the original subdividers. Their lack of skill in land development is underscored by the clumsiness of the early surveys, which would not close. Survey inaccuracies, which were permissible in the countryside, later proved a problem in the 1780s. Documents surrounding a controversy which broke out in 1736 over the location of the market place imply that William Shipley led the move to straighten the property lines. He also encouraged migration of Pennsylvanians to this area (Hoffecker 1974).

Shipley bought much of the undeveloped land in Wilmington and began building a market house, even before he was sure the town would get a license to hold a market. He also seems to have been largely responsible for the

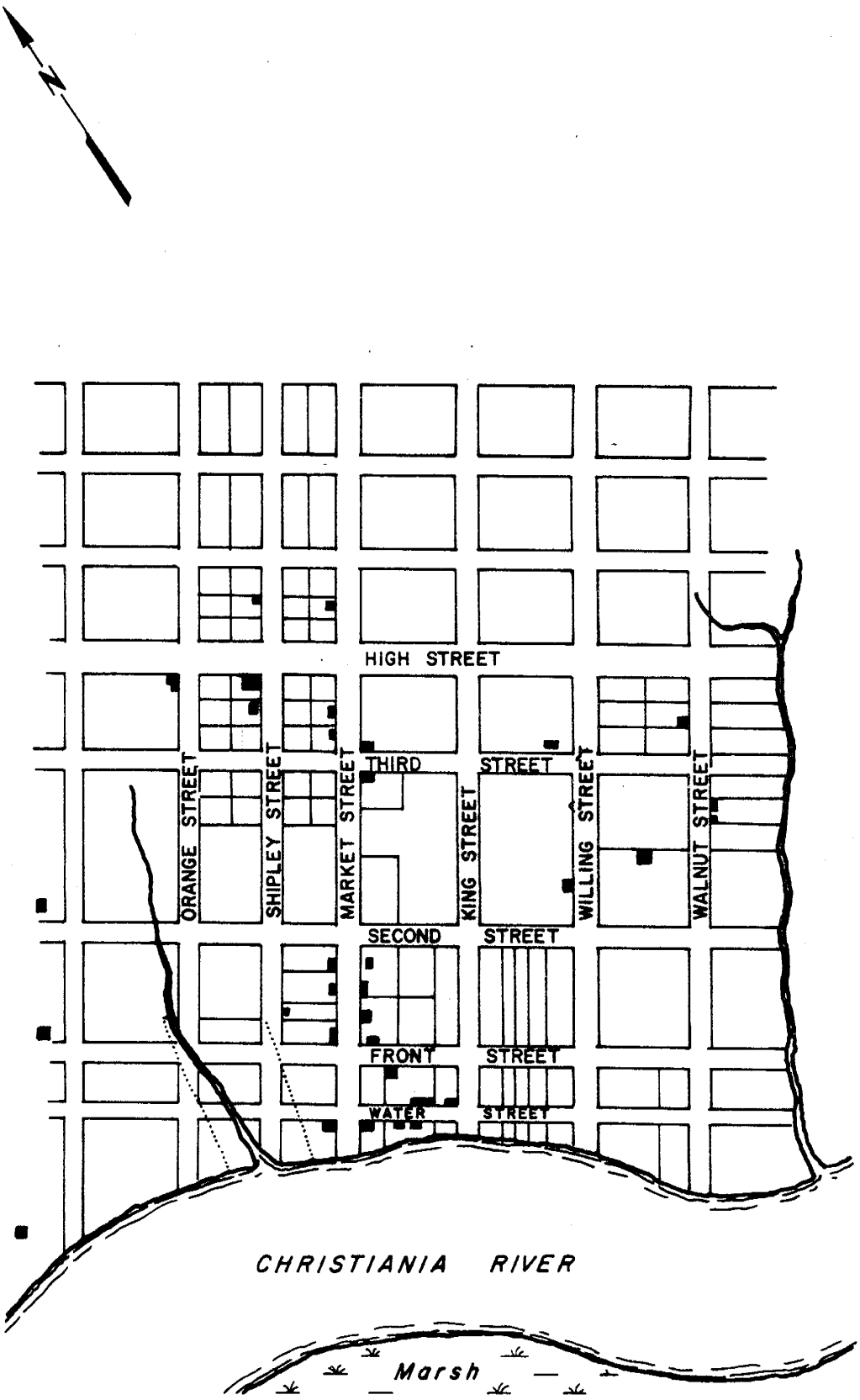


FIGURE 7
PLAN OF WILLING TOWN-1736
IN A HISTORY OF THE ORIGINAL SETTLEMENTS ON THE DELAWARE BY BEN FERRIS, 1846

(SOURCE: THOMAS, REGENSBURG, AND BASALIK 1980)

establishment of the town's street grid. The market petitions imply that Fourth Street was not developed or even laid out when Shipley began to build the market on what his opponents believed to be his own land. Shipley's opponents also considered him to have been responsible for "regulating" the setback along Market Street, and even by Shipley's own admission he was concerned that the buildings be aligned evenly, and not set helter-skelter. That concern with alignment was to be one of the main efforts of town government in the eighteenth and early nineteenth centuries (Hoffecker 1974).

Economy

From 1740 onwards, Wilmington's economy rose and fell, and mostly rose, with the economies of the colonies and later of the nation. Wilmington's advantageous geography gave the city an edge in the competition for the lucrative Susquehanna Valley wheat trade, which formed the backbone of the city's economy from its foundation until the end of the eighteenth century. Because of the local topography, the transportation route from Lancaster County to Wilmington was shorter and easier than the route from Lancaster County to Philadelphia, and Wilmington's shipping merchants took full advantage of that fact (Hoffecker 1974:4).

The landings along the Christina were developed early. One of the first divisions speaks of a property containing warehouses at the eastern edge of the Willing Town tract before 1736. The Shipleys and others became active in the wheat trade and not surprisingly, the earliest controversy in the city's history concerns the location of a market. By the end of the eighteenth century, Wilmingtonians had connections which reached from the Bounty Lands in Western Pennsylvania to Antigua (New Castle Deed Book Q1, 1750).

Government and Public Services

Wilmington received its charter as a borough in 1740. The people had asked to name the town Willing Town, apparently after Thomas Willing; in the earliest deeds, residents, and lots are described as being located in Willing Town. The proprietary bureaucracy changed the town's name subsequently to Wilmington after the Duke of Wilmington, a favorite of George II. William Shipley was named First Burgess, roughly equivalent to mayor. Although he held this post for only a few years, he remained active in town government almost constantly for about 15 years, until near the time of his death (Scharf 1888).

The early town government was made up of two burgesses and six assistants, all elected, and several minor appointed officers. The first ordinances were concerned with street maintenance: regulation of town markets; establishment of an assize of bread; fire prevention; and the control of nuisances such as animals running at large, and the immigration into Wilmington of people believed to bear contagious diseases (Scharf 1888, City of Wilmington Minutes of Borough Council 1740-1832).

Street Maintenance

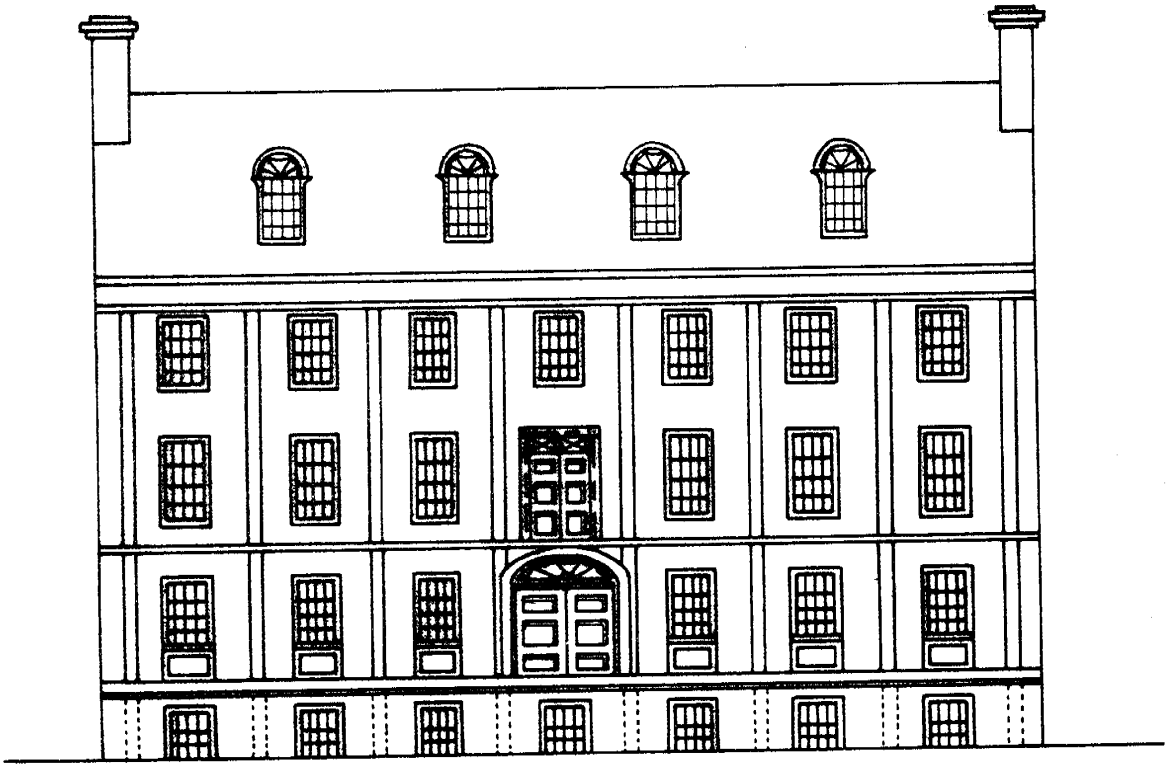
The Borough's streets and amenities were the government's most constant concern during Wilmington's first 30 years. In 1741, the Council established

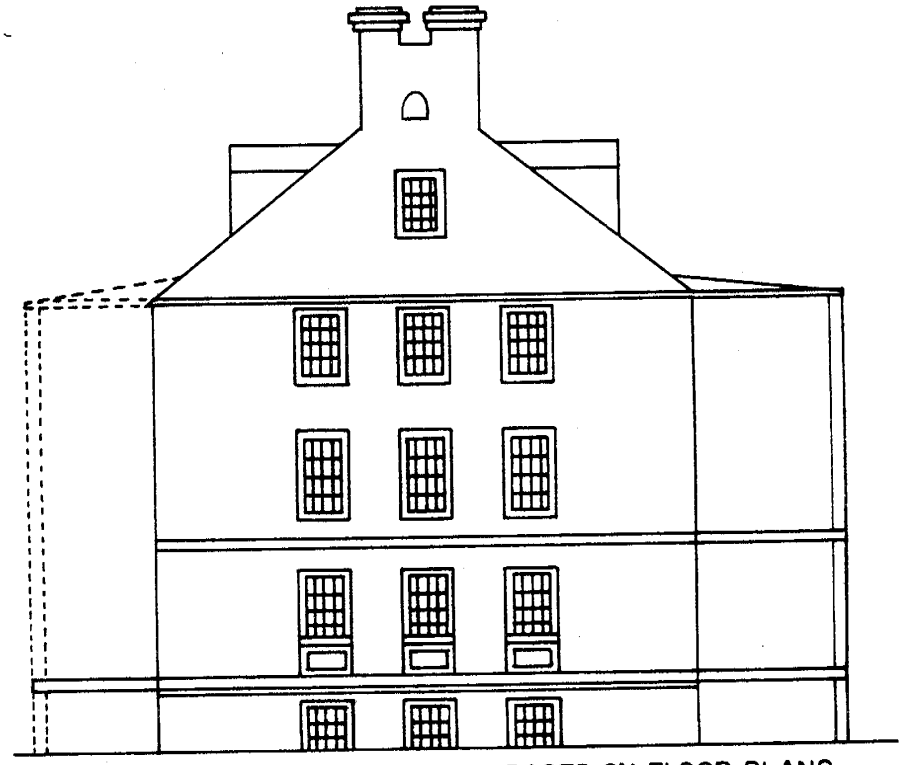
the post of "Overseer of the Highways", the only standing committee in the town's government until the end of the eighteenth century, the "Regulators of the Streets". The Overseer's duties were almost identical to those of the county Overseer of Roads, that is, to make sure the streets and highways within the borough were in good repair and that taxables had paid their assessed days' labor on road maintenance. The Regulators of the Streets had the authority to "measure and lay out the front of any (new) building" and to "give (the owner) directions on account of ranging the front" (Borough minutes, 1741). New buildings that encroached on the streets in the town plan were to be pulled down at the charge of the offender, provided that the Regulators had given warning before the building was one story high.

In spite of efforts to maintain an even setback, some buildings put up during the Borough's first 30 years were out of line. These included the Jones House, which was built during the 1760s at the corner of Front and Shipley Streets and which survived until it was demolished for the Wilmington Boulevard connector; and the "IWS" house which stood on the corner of Front and Market Streets and which was demolished to build Sharpe's Hotel, possibly the hotel represented in Figure 8, at the end of the eighteenth century. Both of these buildings were probably forced out of alignment by surviving old property lines from the pre-1736 land divisions.

Beginning in the early 1770s, Wilmington made a serious effort to rid itself of anomalous property configurations and misaligned structures. In 1773, the Borough received permission from the legislature to realign Third Street. That street still followed the old alignment of the erroneous surveys and lay at an inconvenient angle to the rest of the town grid. Little came of the effort for about ten years, as the Revolution and a brief suspension of town government during the 1770s disrupted most municipal functions. Once the realignment was completed in 1783, the town concentrated on ridding itself of intrusive or misaligned buildings. An ordinance limited the extent of repairs which could be made to intrusive buildings, but it was not especially effective. In 1787, the owners of garden fences, stables, and "necessaries" which encroached on Shipley Street from Front Street to a bit above Second Street were ordered to remove them. The encroachments were still standing a year later, so the Overseer of the Streets was ordered to remove the intrusions and bill the owners. Also, dedicated but unopened rights-of-way continued to create problems, with occasional complaints about misaligned buildings appearing in the borough minutes into the nineteenth century.

Street maintenance occupied much of the Borough government's attention. The streetways were unpaved until well into the nineteenth century, although sidewalks were mandated almost from the beginning. Lot owners were required to pave and gutter the streets to ten feet in front of their lots and to maintain "perch poles" every 16.5 feet along the street face. Various ordinances forbidding obstruction of these walkways were passed, which by the end of the eighteenth century limited the placing of signs, large displays of goods, or parked vehicles on the sidewalks. Once the landowners had built the sidewalks and gutters, the town took responsibility for their maintenance, since numerous bills for cleaning gutters and repairing pavements appear in the town records.





CONJECTURAL SIDE ELEVATION BASED ON FLOOR PLANS & FRONT ELEVATION

FIGURE 8
ELEVATION OF A WILMINGTON HOTEL
(SOURCE: FERRIS COLLECTION, H.S.D. NO DATE, PROBABLY AFTER 1825)

Water and dirt constituted the main street nuisances, followed by various problems with obstructions and with open holes such as wells and gravel pits. Dirt was fairly easy to handle. In the middle of the eighteenth century, the Borough passed an ordinance requiring scavengers to wait 24 hours before removing manure and other detritus from the streets, in case the owner might want to reclaim it. Noxious substances such as carcasses, blood, or dung from meat cutting establishments were barred from the streets. In the 1790s at the latest, the town began to sell the street-cleaning franchise. Manure was a salable commodity well into the nineteenth century, and the city realized a small but steady return from this noisome resource.

Drainage and ruts were less amenable problems. The unpaved streetways were subject to severe erosion. Hillside streets suffered especially, and low areas tended to fill rapidly. Street maintenance formed the bulk of the town's expenses during the eighteenth century and continued to do so into the second quarter of the nineteenth century. In 1771, a group of men were appointed to "go with the overseer of the Streets to View and give Directions where to turn the Water off Market Street . . ." (Borough minutes, 1771). A few years later, the town built a sluice in Broad (6th) Street and repairs were made to the "bridge or crossway in Second Street" near Orange, and to one in Queen Street as well.

The town made a fitful start at paving parts of King Street and Second Street "in the middle" in 1784, but gave up when the expense proved to be greater than the Burgesses and Assistants wanted to spend. They settled for new guttering instead and ordered the overseer to buy pebbles for making street repairs. The rate of street erosion and fill remained a constant problem. In 1786, the town built a public wharf at the foot of Market Street, but by 1794 the land had filled in to the point that runoff from Market Street inundated the wharf. The Borough government ordered the wharf to be built up to a foot above grade to divert the runoff.

Street alignment and elevation were maintained with the aid of center stones. These stones were reset each Spring as a matter of course, but by 1787 the borough government appointed a committee to take new street elevations. This resulted in a new town plat, which showed the elevations, and the establishment of bench marks to help maintain the street elevations. In the 1790s, the Borough bought a new plow for levelling the streets, and looked into several new kinds of automated earth-moving devices.

Although paving and storm-sewers were the obvious solution to the problems of erosion and wash, the town did not install storm sewers until the second quarter of the nineteenth century, when they took easements from landowners near Orange Street for drainage culverts. The only serious early effort to alter the city's hydrology occurred in 1788, when Shipley Run was channeled through a culvert where it crossed High Street. Pavement did not appear until the end of the nineteenth century.

Water and Sewers

Through the eighteenth century, Wilmington residents got their drinking water from wells and from springs in the hillside. Water rights tended to follow properties, and as late as the 1880s, a number of lots within the project

area were sold with residual water rights to a major spring in the vicinity of West Street. Other properties throughout Wilmington were often sold with residual rights to water in the well on an adjacent property.

In 1788, the Borough received a petititon that it take over some wells belonging to individuals, but the government deferred action. A committee was later appointed to inquire into the transfer of responsibility for wells to the city, but that committee seems never to have reported back to the Assistants. In 1804, however, a group of citizens established the Wilmington Spring Water Company as a private company for piping water from springs on Third and Tatnall Streets to the subscribers' cisterns. Six years later the city took over the company, and public hydrants replaced private cisterns (Hoffecker 1981:3).

Privies remained the main means of disposing of human waste during the eighteenth and nineteenth centuries. Wilmington had the authority to require householders to clean noxious privies, but that seems not to have been much of a problem. During the yellow fever epidemics, which occurred at the turn of the nineteenth century, the town appointed sanitation monitors for each block and empowered them to remove any and all possible sources of contamination.

Governmental Organization

During the closing decade of the eighteenth century, Wilmington's government underwent a noticeable change in its operating procedures. Responsiblity for specific tasks was delegated to committees. The Borough Council also began during this time to adopt both tax goals and budgets. This seems to have been an unconscious reordering, for there were no records of specific or directed debates over tightening the government's organization.

In 1798, the city government moved into its first town hall, and in the early years of the nineteenth century the Borough began to agitate for a new charter as a city. As a borough, Wilmington had to have most important decisions,including such local matters as the realignment of Third Street, approved by the General Assembly. Rechartering as a city allowed the city to manage its own financial matters and public works.

Population

Wilmington's population in 1739 has been estimated to have been about 600 people. By the time of the Revolution, this estimate had grown to about 1500 people (Scharf 1888:643). A census taken by the city in 1859 put the population figure at almost 20,000 and growing exponentially. The sharpest increase in the 120 years or so between the city's establishment and 1860 was during the decades between 1840 and 1860, when the population almost doubled.

All of Wilmington's first settlers seem to have come from the nearby countryside, including southeastern Pennsylvania. As such, its composition reflected the population in New Castle County at the time. Ethnically, the population of early Wilmington seems to have been divided approximately equally between Quakers of English descent and descendants of the county's original settlers, most of whom were either Lutherans or Presbyterians.

Although the persons involved with the initial subdivision of the Willing Town tract seem to have come from the nearby countryside, within a very few years the city had attracted a substantial population whose ties were to the growing interior farm region of Pennsylvania. "The establishment of Lancaster, Pennsylvania in 1730 signaled the westward movement of the farming frontier. From many parts of Lancaster and Chester Counties, the shortest route for grain to the Delaware River . . . was by wagon to the Christina . . ." (Hoffecker 1974:4). Examination of the residences of people engaged in Wilmington land transactions and the places outside of Wilmington where city residents invested in land clearly reflected continuity with eastern and central Pennsylvania.

Only 11 occupations can be definitely identified among the 18 men who were called something other than yeoman in Wilmington during the town's first five years. These are carpenter (2), cooper (2), cordwainer (1), doctor (1), innholder (1), joyner (1), mariner (2), shallopman (1), storekeepers (5), tanner (1), and weavers (2). This limited identification of tradesmen in early Wilmington is almost certainly an artifact of the method of record keeping and does not reflect the full range of trades in town. Not only did most buyers and sellers of property during this time appear with the identification "yeoman", the people who held lots on the Trinity Church land on ground rent do not appear in the deed record with any regularity and thus their occupations are not accessible to the historian from this source.

The Manufacturing Period

Land Value and Real Estate Market

The beginnings of industrialization showed renewed activity in Wilmington's real estate market, and the introduction of the railroad made land sales skyrocket. Through the eighteenth century, lots in the project area had been considerably more valuable than lots in the city as a whole. During the early years of the nineteenth century, the value per square foot of properties in the project area dropped in comparison to the rest of Wilmington. Heavy speculation may have been occurring in other parts of the city, such as the subdivision of very large new tracts of land.

Study of the duration of ownership and number of land transactions in the project area by decade (Table 5) indicates that the real estate market in that area was extremely active until the Depression of 1819, despite the relative drop in project area land values. The Depression of 1819 exacerbated the slump land values in the project area, and slowed real estate sales in the city generally. The period of development surrounding the introduction of the railroad in 1837 brought on an increase in real estate activity in the project area. The project area lots became more valuable than city lots as a whole. That was a fairly short-lived phenomenon, though, for the project area lots averaged slightly less in value per square foot than the rest of the city in 1850 and 1860.

Within the project area the relationship between the east and the west ends of the area in terms of selling price and value remained constant during the years for which price data were taken - 1735 through 1860. Lots on the easterly four blocks, which include two which face on Market Street, were

consistently more valuable and more expensive than lots on the most westerly three.

Table 5. Duration of Ownership of Project Area Properties Sold Each Year 1730-1900

Year	Mean Duration of Ownership	Ranges of Duration of Ownership	Number of Cases of Ownership Changes per Decade
1730-1740	9.8 years	0-17 years	17
1740-1750	11.5	8-17	8
1750-1760	10.7	0-17	9
1760-1770	13.7	0-29	12
1770-1780	15.7	10-19	3
1780-1790	12.1	0-52	20
1790-1800	8.9	0-18	17
1800-1810	11.2	0-62	33
1810-1820	10.4	0-49	35
1820-1830	15.8	1-32	8
1830-1840	12.7	1-29	20
1840-1850	11.6	0-34	33
1850-1860	12.3	1-32	15
1860-1870	15.3	0-30	28
1870-1880	16.8	0-45	36
1880-1890	10.2	0-32	56
1890-1900	11.0	0-46	61

Economy

At the beginning of the nineteenth century, the city's economic base shifted from shipping and commerce to manufacturing. The transition was a natural outgrowth of the city's involvement in the wheat trade and its geographic location. The Brandywine stream, which effectively formed Wilmington's northern boundary, was one of the first rivers in America to be extensively tapped for water power. Major textile, gunpowder, and flour mills were built along its banks during the 1790s and 1800s, resulting in industrial enclaves just outside Wilmington's boundaries (Scharf 1888).

A second shift in focus occurred after the building of the railroad in 1837. The development of steam power at that time was liberating heavy industry from dependence upon water power, and certain other major shifts in the national economy had aided the eclipse of the Brandywine valley as a manufacturing center. The railroad, however, enhanced the old land-route/water-route conjunction which had originally made the bank of the Christina an attractive site and helped to revitalize an old Wilmington industry: shipbuilding. It also accelerated the appearance of new industry in the form of

railroad support facilities, railroad car and car wheel factories, and subsidiary machine, engine, iron, and tool works. These heavy industries located between the tracks and the Christina and once again changed the city's focus back to the Christina. Demand for iron ships, railroad facilities, and gunpowder stimulated Wilmington's economy during the Civil War (Scharf 1888).

Streets and Street Maintenance

The major bridges across Wilmington's two boundary streams, the Christina and the Brandywine, were built in the first decade of the nineteenth century. The Christina Bridge was built in 1807, finally connecting Market Street with the land to Wilmington's south. Two years later, a masonry bridge replaced the old wooden bridge across the Brandywine. Thus, Wilmington's primary commercial street was finally connected directly to the city's hinterland (Scharf 1888).

The western ends of Wilmington's east-west streets were opened, and during the first half of the nineteenth century, the streets near Justison Street were opened. The former Pasture Street, just east of Justison Street, was opened all the way to the Christina and renamed Washington Street. An early residential alley, Lafayette Street, was opened through the Washington Street to Justison Street block. There is evidence that it was supposed to extend through the West to Washington block as well, although it never did (Scharf 1888).

Water and Other Public Services

The years surrounding 1830 saw public service take a dramatic new direction. The city installed a pump and reservoir water system, replacing the old gravity-powered system installed in the first years of the nineteenth century (Hoffecker 1981). In 1833, a group of private citizens organized the Wilmington Gas Company and erected a rosin-gas plant at the foot of Orange Street at Water Street, about one block south of the project area (Scharf 1888:668-669).

Governmental Organization

Concurrently with the new railroad and the revitalization of the bank of the Christina as a manufacturing center, Wilmington finally achieved recognition as a city. The former Borough received its new charter in 1832. The following year, Wilmington Hundred, which comprised the City of Wilmington, was separated from Christiana Hundred. The "hundred" in Delaware was roughly analogous to the township of Pennsylvania and formed the basis of representation in the State Senate. This action effectively liberated the city from any political influence by the nearby countryside, for nearly all local governmental functions were carried out at the hundred level.

Population

By 1800, the triangular configuration which Wilmington would have for the next 80 years had developed. The triangle's base lay along the Christina from Pine Street to Justison Street, and its apex lay on Market Street at approximately Tenth Street. Most occupational categories showed fairly

consistent proportions during the first part of the nineteenth century, until 1860 (Figures 9 and 10). It should be noted that the occupational density maps illustrated in this chapter address presence or absence of individuals within certain occupation codes in the project vicinity through time. Further statements concerning concentrations of occupations are based on project historical research. Occupational category 1, upper level mon-manual workers such as professionals and officials, dropped rather dramatically between 1814 and 1845; this was probably the result of the fading from fashion of the terms "gentleman" and "gentlewoman". Highly successful or influential skilled workers and merchants, who might have been designated "gentlemen" in 1814 were identified by their trades, and thus were more evenly distributed through the population. This factor alone could account for a rise in the portion of skilled workers in the 1845 sample, although the rise might represent a real influx of skilled retail artisans.

Figure 9, non-manual workers in 1814, shows that the areas occupied by this general class of workers displayed considerable linearity and tended to hug Market Street and the commercial blocks between Mulberry Dock and Tatnall Street. Lower level non-manual workers were located along Market, Front, and Second Streets, while upper level non-manual workers occupied an area that was somewhat less tightly defined but still linearly aligned to Market and the parallel adjacent streets. The concentration of non-manual workers skirted the steep slope that lies between West, Tatnall, Front, and Fourth Streets, and did not extend to the east beyond French Street.

All manual workers occupied a much larger geographic area, including the steep hill and the bottom lands along the Christiana and Mulberry Dock. Figure 10 shows that manual workers almost completely surrounded non-manual workers except for the end of Market Street nearest the Brandywine. Skilled workers, however, tended to reside further west of Market Street than east, and lower level manual workers resided east of Market Street with the exception of two small pockets of lower level manual workers in the areas of Front and West and 6th and West Streets. Semi-skilled workers appeared in a loosely defined area approximately three blocks either side of Market Street, between the Christina and 9th Street.

The end of the eighteenth century saw Wilmington's population change, as waves of immigrants entered the Middle Atlantic. First Scotch-Irish, then Germans, then Catholic Irish swelled Wilmington's population before the Civil War. Concurrently, a growing minority of free blacks formed a recognizable community in this Abolitionist city (Hoffecker 1974).

Before the Civil War, the sizable free black community existed alongside a diminishing slave community. Delaware's slave laws encouraged manumission. The free black community in Delaware seems to have been highly mobile (E. Moyne Homsey personal communication), and some of these people had settled on the edge of Wilmington before the end of the eighteenth century, representatives, most likely, of the wave of emancipations that accompanied post-revolutionary liberalism and severe depression in tobacco prices in Virginia and Maryland. It is nearly impossible to get a clear picture of the size or location of the black community in Wilmington before 1800, however. Most were not landowners, and only two or at most three free blacks appeared in the Wilmington deed sample for the eighteenth century.

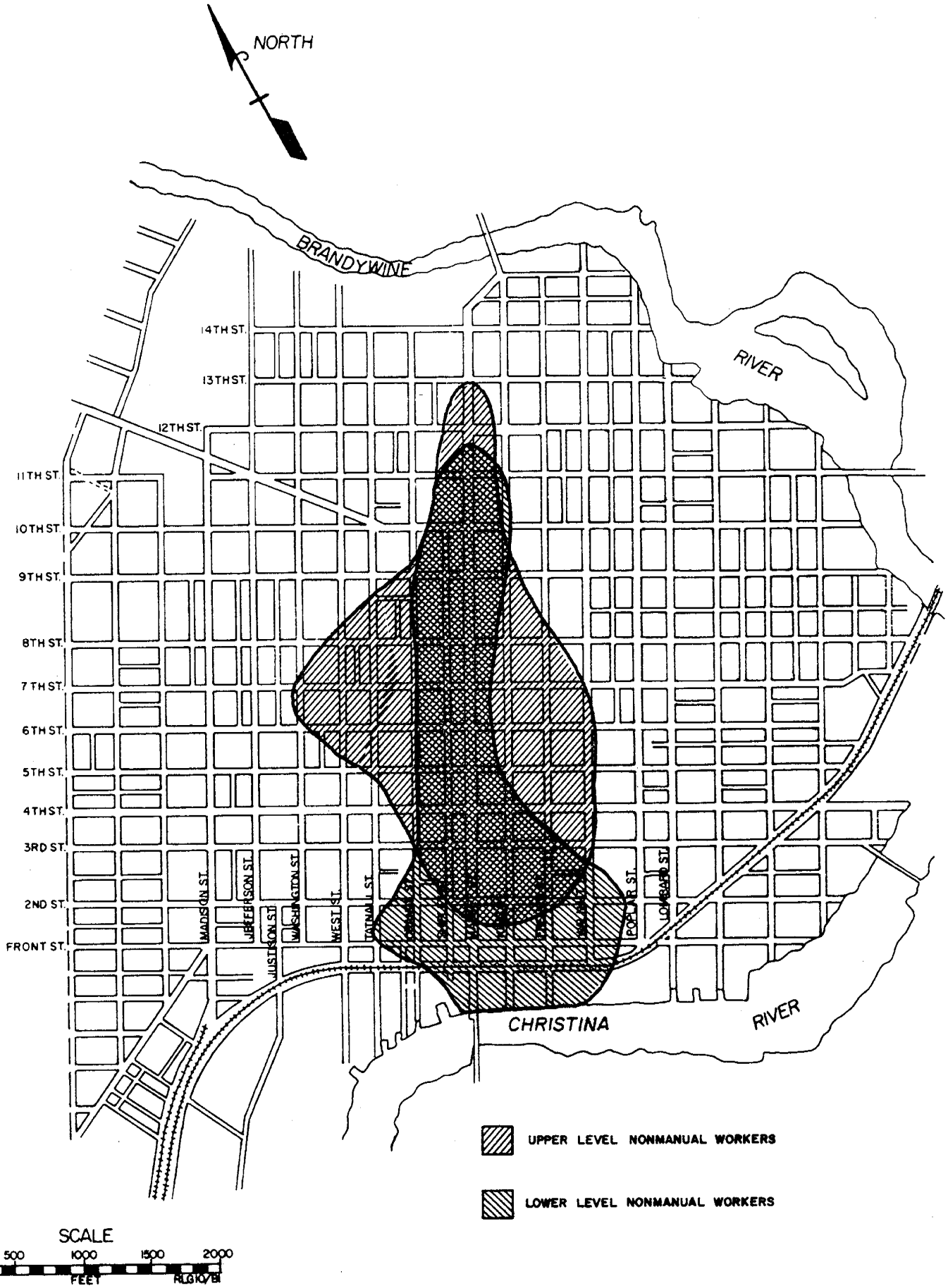


FIGURE 9
GEOGRAPHIC DISTRIBUTION OF
NONMANUAL OCCUPATIONAL
CATEGORIES, 1814

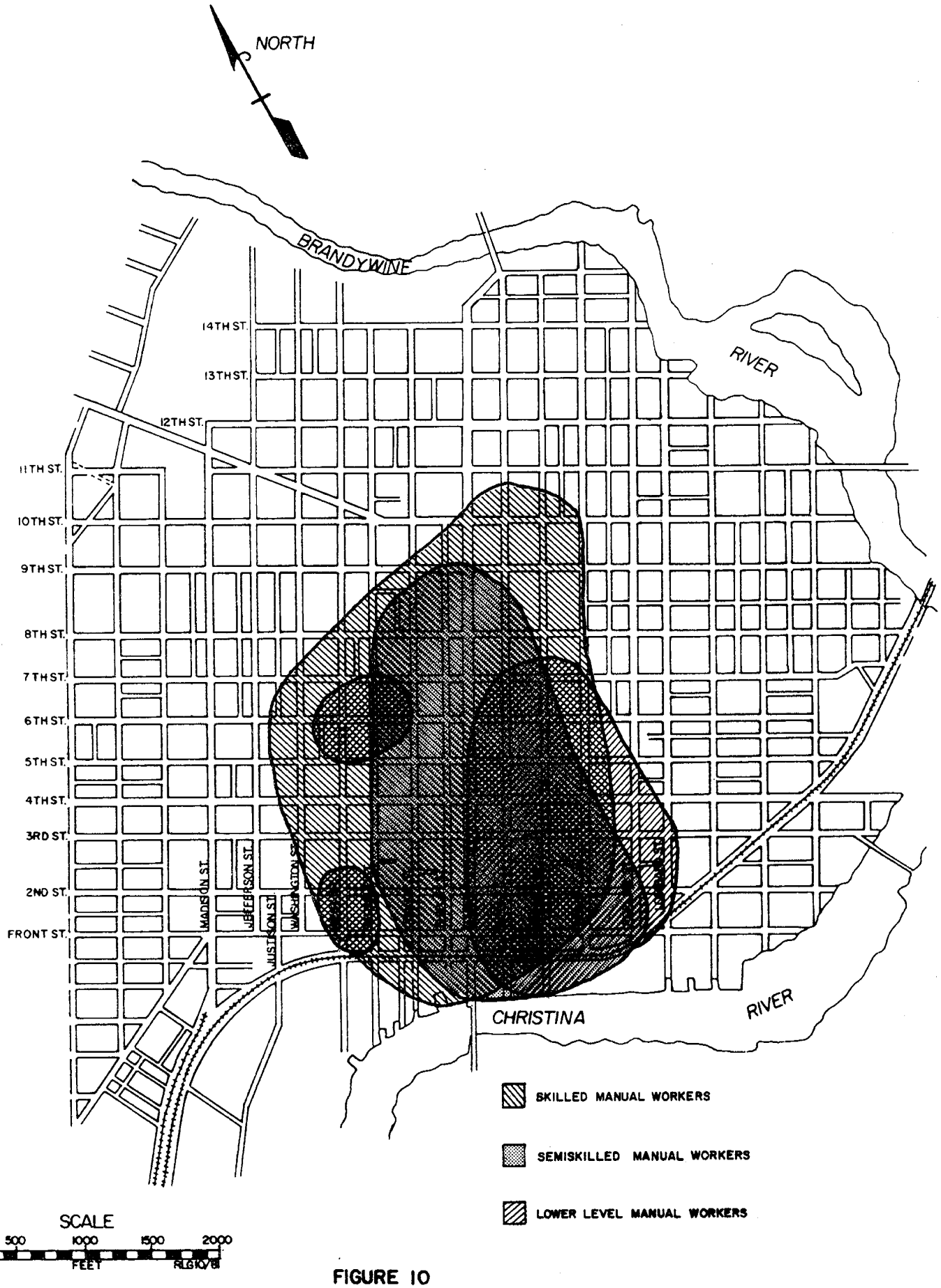


FIGURE 10
GEOGRAPHIC DISTRIBUTION
OF MANUAL WORKERS, 1814

Most of the black heads of household in the 1800 census were listed interspersed among whites who owned land in the area between Shipley and West Streets and Front and 5th Streets (see Block History, Area I, Appendix B). If the census was taken by street or by neighborhood, as it appears to have been, then most of the free black population lived on the hillside on the western side of town in rental housing and interspersed among whites. No more than four black heads of household appeared in a row in this census.

Table 6 gives the racial composition of Wilmington from the 1800, 1830, and 1840 United States censuses and the 1859 Wilmington City census.

Table 6
Racial Composition of Wilmington (Heads of Households) 1800-1859

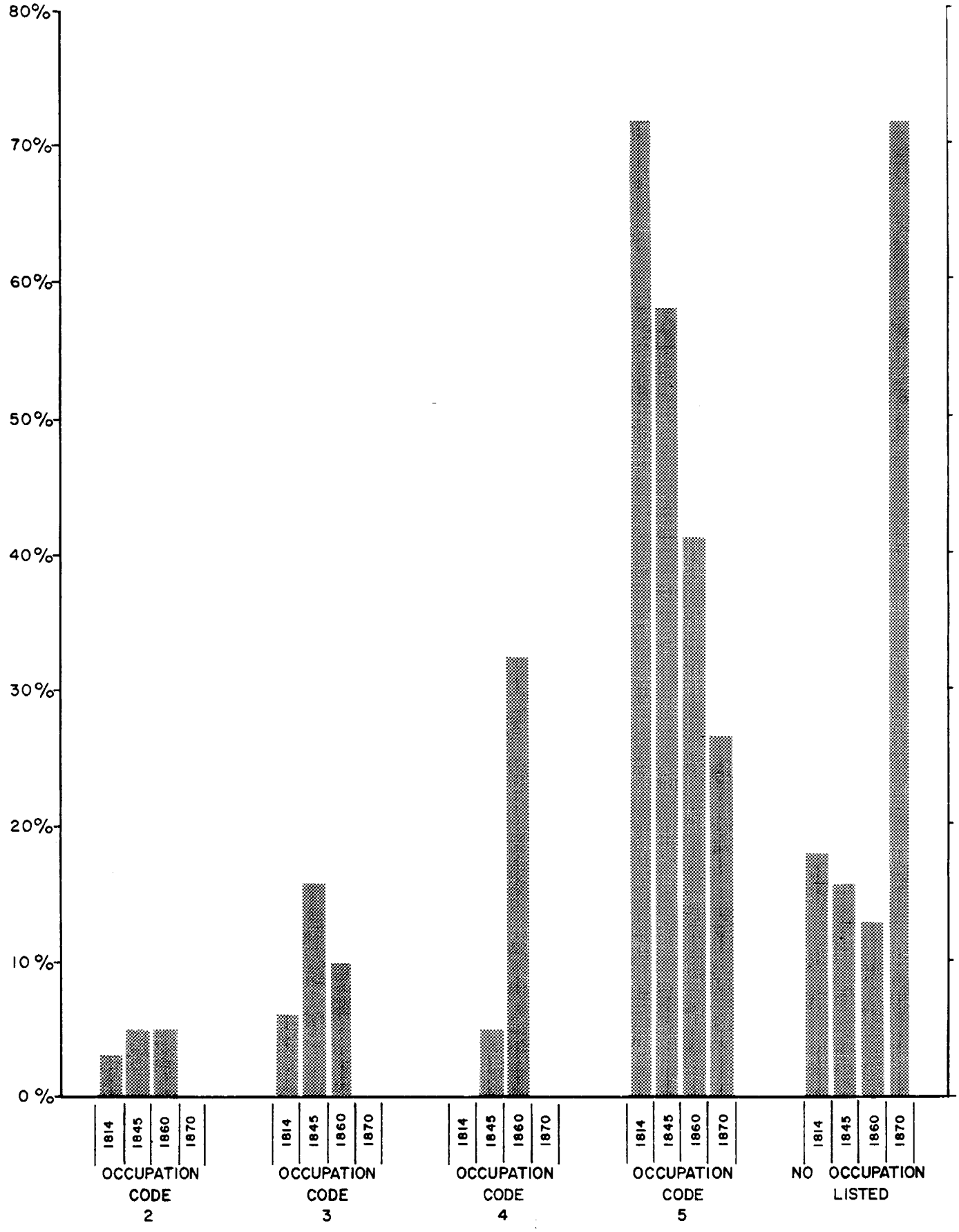
Year	White	Free Black	Slave	Total
1800	3501 (87%)	444 (11%)	121 (2%)	4066
1830	5190 (79%)	1399 (21%)	14 (1%)	6603
1840	6752 (81%)	1541 (19%)	1 (1%)	8293
1859	17677 (89%)	2112 (11%)	-- --	19768

Black households were noted as such in the 1814, 1845, 1860, and 1870 directories, but not afterwards. This population group consistently concentrated in the lower end of the occupational spectrum, mostly in the semi-skilled and unskilled worker categories. Figure 11 shows the proportion of the black population in each occupational category in these years. The figure suggests that between 1814 and 1845, black occupational status rose noticeably. The most dramatic change was a rise of nine percentage points in the proportion of the black population engaged in skilled trades, and a smaller rise in the proportion of blacks listed in unskilled occupations. These rises were accompanied by drops in the proportions of blacks employed in semi-skilled work and those with no occupations listed.

The Early Industrial Period

Land Value and Real Estate Market

The 1845 assessment provided a remarkably complete description of the properties on streets fronting and within the project area during Wilmington's early industrial phase. This assessment listed the owner, the number of lots in the parcel, the significant buildings, how large they were, and construction fabric. Buildings which had a strictly commercial use were differentiated from residences, but the assessor did not consistently list multiple-use buildings as such. Street numbers were not listed in the assessment, but buildings were located by descriptions such as "Front Street corner of Market". Thus, the assessment sample contains buildings which were outside of the project area on Front, Second, King, and Justison Streets, which could not readily be separated from the sample. Similarly, it was not



SAMPLE SIZE :
1814: 33
1845: 44
1860: 24
1870: 11

FIGURE 11
DISTRIBUTION OF BLACKS WITHIN OCCUPATION CATEGORIES

always possible to determine which side of any of the cross-streets in the project area a given property stood on. Therefore, the description of the project area which follows proceeds by street face and not by block.

There were strong relationships between street face and the type and size of building on the lot. Market Street in 1845 sported mostly brick, two and three-storied houses, while at the far end of the project area, Washington and Justison Streets contained mostly frame two-story buildings with occasional one-story shanties. There were no one-story buildings on Market or Shipley Streets. A clear relationship between building size and building material was present, for there were very few large frame buildings and slightly more small masonry ones. The eastern end of the area, with its predominantly large masonry buildings, was on the whole more valuable than the westerly end.

Except for Market Street, these value gradations were not sudden. Differences in lot value between any cross-street, except Market Street, and its immediate neighbor on either side, were not statistically significant (Table 7). The average value of properties on each cross-street from Shipley Street to West Street was a little less than the average value of the street to the east. King Street, which included some very small vacant lots, had the lowest average property value in the entire area, and Justison Street properties actually averaged a little above West Street properties. Property values over the whole area exhibited several clusterings, with one peak at about $500 and others at about $1500 and about $2000 (Figure 12).

The gradation in lot value is remarkably similar to the intensity of development on the cross-streets (Table 8). Owner-occupancy also follows about the same pattern, although the pattern is weaker. There was about 35 percent owner-occupancy in the more expensive easterly end of the project area, and somewhat less in the less expensive westerly end.

King Street seems at first to be anomalous, and perhaps it is. It was definitely a back street to Market Street.

Market was the core of the city and had been for a long time. The most valuable and impressive properties ranged along that street, with progressively less impressive and valuable properties on streets to both the east and the west.

Economy

The liberation of industry from water power permitted the growth of little factories all over the city. Between 1830 and 1880 the use of hand power in manufacturing declined in almost exactly the same proportion as the growth of steam power (Figure 13), while the use of horse and of water power remained a tiny but stable part of Wilmington's manufacturing base. However, the water-powered industries, which certainly served as one basis of Wilmington's economy, were located just outside of the city's boundaries and were not included in the city's industrial schedules.

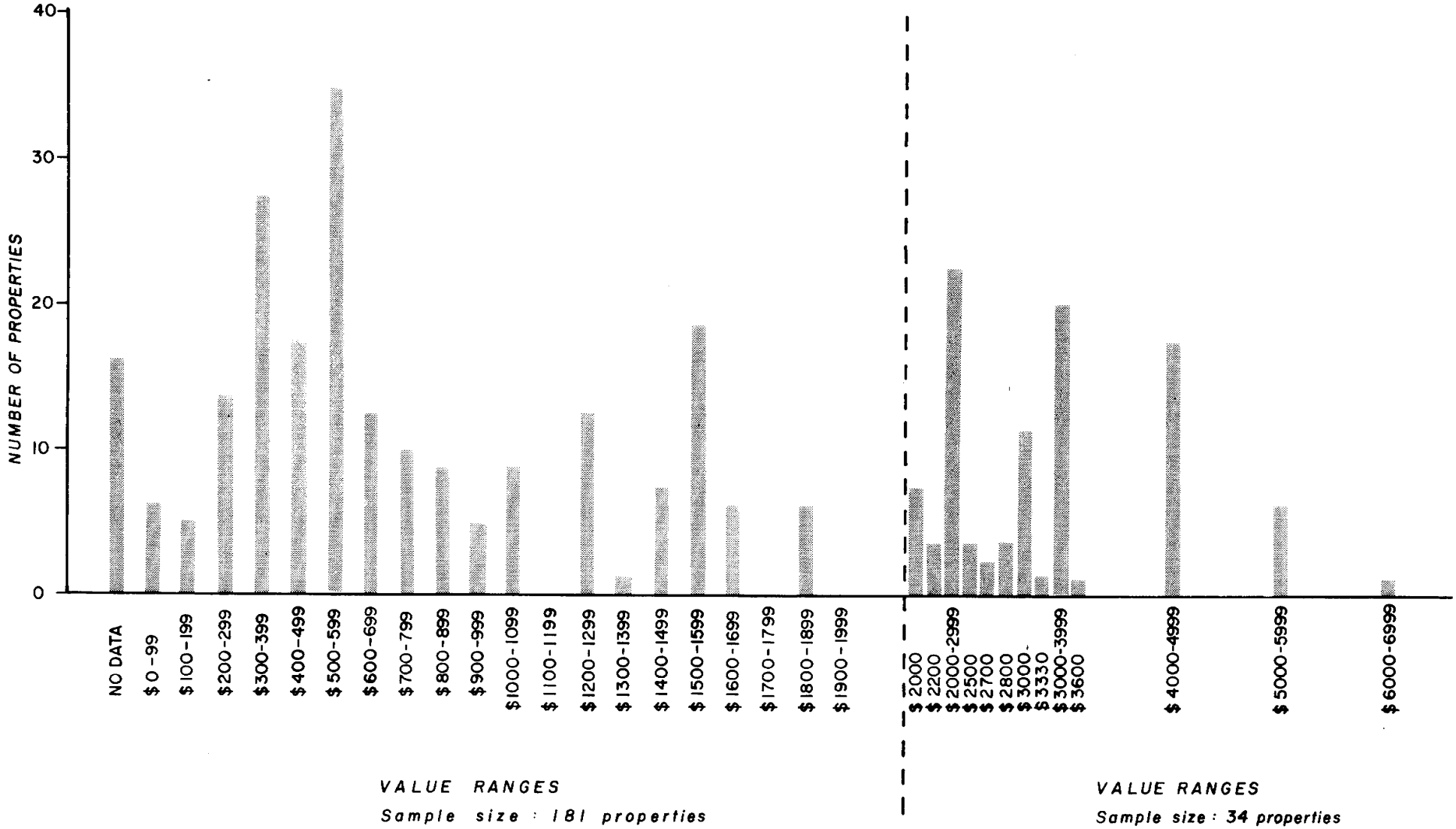


FIGURE 12
PROPERTY VALUES
IN 1845, PROJECT AREA
(SOURCE: 1845 ASSESSMENT)

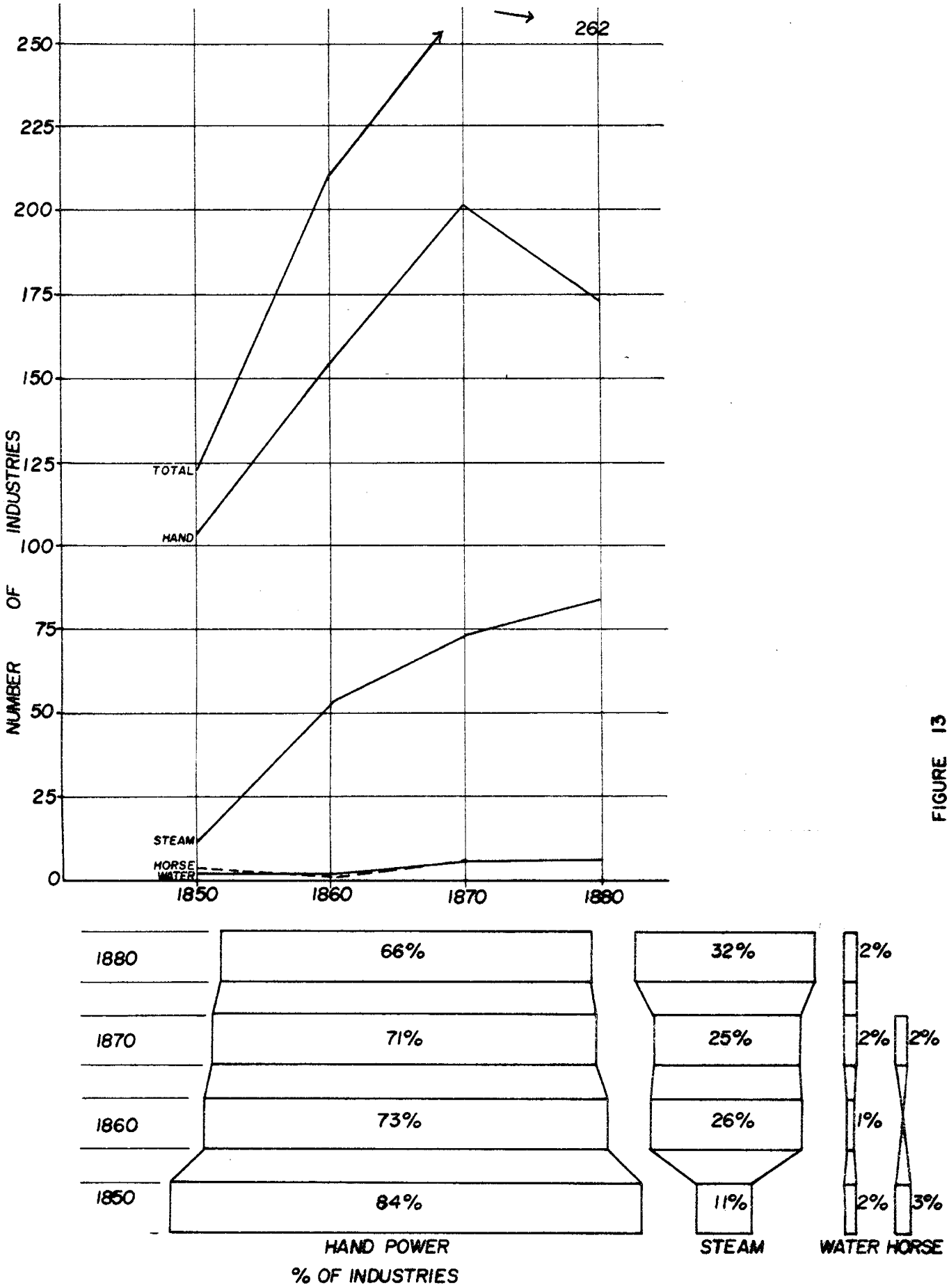


FIGURE 13
CHANGES IN INDUSTRIAL POWER SOURCES · 1850 - 1880

Table 7. Student's t Tests of the Differences in Average Lot Value Between Adjacent Project Area Streets in 1845

Street	N	Mean	Stand Dev.	Obtained t	Required t, p .01
King	10	$ 452.40	$ 522.00		
				- 7.120	2.644
Market	29	3431.04	2011.71		
				5.678	2.682
Shipley	9	1066.67	480.74		
				0.734	2.681
Orange	5	860.00	440.91		
				0.455	2.896
Tatnall	5	710.00	490.331		
				0.547	2.998
West	4	550.00	180.28		
				- 0.062	2.998
Justison	5	560.00	233.24		
Student's t tests of the difference between average lot values at the ends of the project area, 1845:					
King	10	$ 452.40	$ 522.00		
				- 0.371	2.650
West	4	550.00	180.28		
Student's t tests of the difference between average lot values on Front and Second Street, project area, 1845:					
Front	42	$1258.38	$1247.28		
				0.610	2.390 x 2.358
Second	34	1092.65	1044.89		

Table 8. Numbers of Occupant and Non-occupant Landowners by Street Face, Project Area, 1845

Street	N	Occupant	Non-occupant	Uncertain
King	13	2 (15.4%)	4 (30.8%)	7 (53.8%)
Market	31	12 (38.7%)	12 (38.7%)	7 (22.6%)
Shipley	12	4 (33.3%)	6 (50.0%)	2 (16.6%)
Orange	7	4 (57.1%)	2 (28.6%)	1 (14.3%)
Tatnall	7	0 (0%)	6 (85.7%)	1 (14.3%)
West	5	0 (0%)	0 (0%)	5 (100.0%)
Washington	*			
Justison	7	4 (57.1%)	3 (42.9%)	0 (0%)
Lafayette	*			

*Streets recently opened but apparently not settled in 1845
Sources: 1845 Wilmington assessment and 1845 directory

The decade of the Civil War saw a dramatic rise in the number of persons listed in the directory with no occupation given, and a similar rise in the portion of lower level manual workers in the population. There was a decline in the proportions in the population of almost every other occupational group, except lower level non-manual workers, which held steady.

Figure 14 shows that by 1845, people with non-manual occupations had moved into most of the area occupied in 1814 by manual workers. This was not so much a process of displacement as it was a process of interspersal. There was, however, a noticeably sharper delineation among concentrations of subdivisions of non-manual workers in the sample. The division was sharpest between financiers and major or wholesale merchants (upper level non-manual workers) and lower level non-manual workers. The former concentrated almost entirely west of King Street and as far inland as Eighth Street, while the latter concentrated in an area bounded roughly by Front, Fourth, Market, and Poplar Streets. Professionals and officials still hugged Market Street and the three blocks on either side. In fact, the residential area associated with the latter group shrunk a bit, although the shrinkage may be an artifact of the sample. This top category of non-manual workers tended to live higher up on Market Street than lower level non-manual workers, but still overlapped with the latter group.

Lower level non-manual workers were interspersed throughout the area occupied by other non-manual categories. These individuals were generally proprietors of small retail shops. This distribution is reflective of local-service nature of this type of business and its dependence on a walk-in trade. It is worth noting, however, that several of the shops along Front Street depended on a more extensive trade, and their business bordered on wholesaling. Examples of this kind of borderline business are the Alderdice farm supply store at the corner of Front and Orange Streets, or the Jones furniture shop on Shipley Street near Front. Sharp's Hotel, which occupied the whole Front Street end of the Market to Shipley Streets block also falls into the "proprietor" category, but it was one of the town's principal hostelries, and certainly did not depend on local service trade.

Curiously, of the non-manual workers in the 1845 directory sample, only one appeared in the area near the Brandywine. While this may be an artifact of the sample, that seems unlikely on the surface. It does seem more plausible that most non-manual workers engaged in the Brandywine industries lived in Brandywine Village which lay outside of our city-wide study area.

As in 1814, manual workers occupied a larger geographical area than did non-manual workers (Figure 15). Skilled workers concentrated in two virtually contiguous areas, one where Market Street crossed the Brandywine and a larger one which actually encompassed most of the inhabited part of Wilmington.

Persons occupied in building trades concentrated in the southeasterly corner of Wilmington, around the lower end of French Street. These tradesmen were mostly carpenters, masons, and plasterers. They lived interspersed with lower level non-manual workers. The only noticeable concentration of

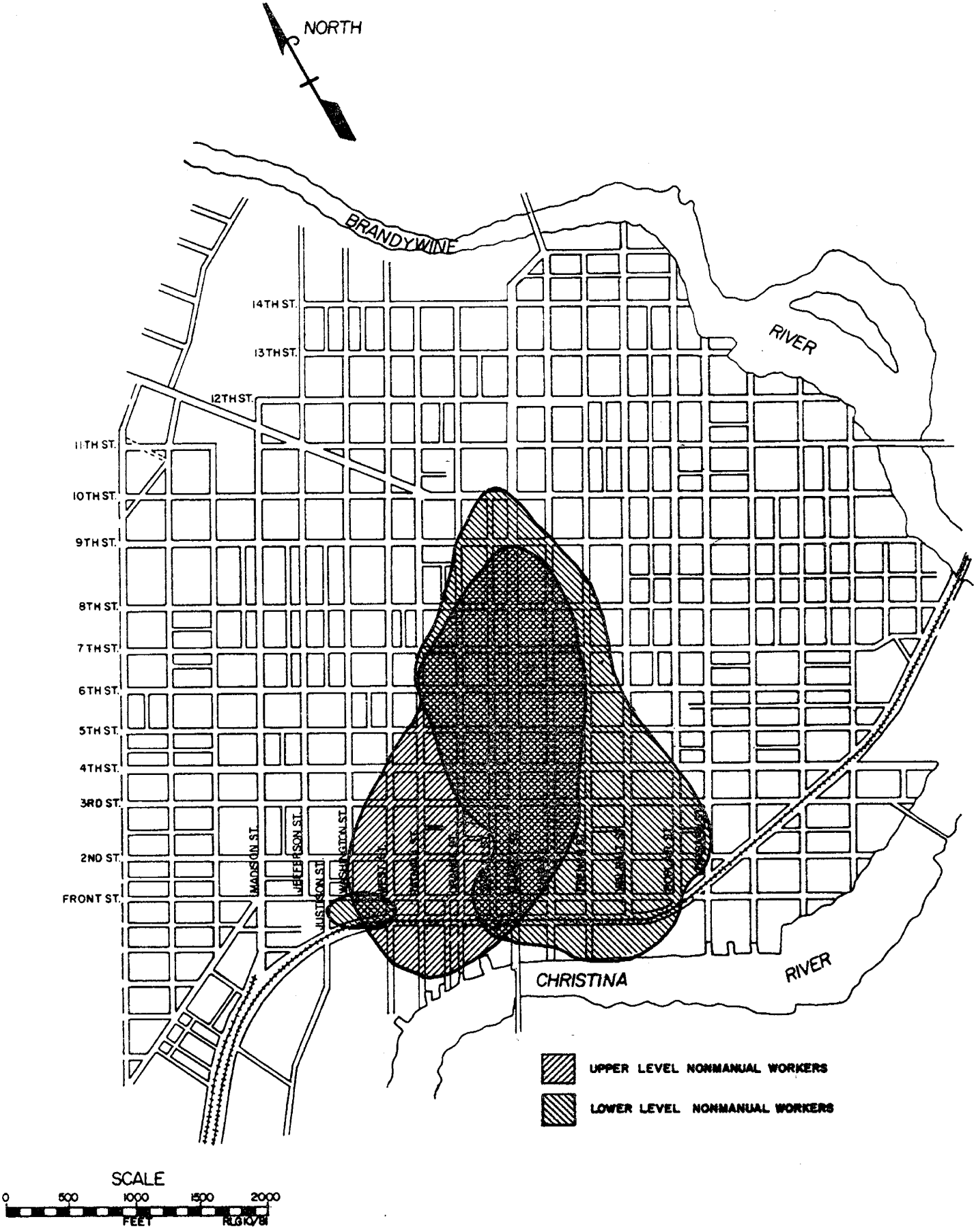


FIGURE 14
GEOGRAPHIC DISTRIBUTION OF
NONMANUAL WORKERS, 1845

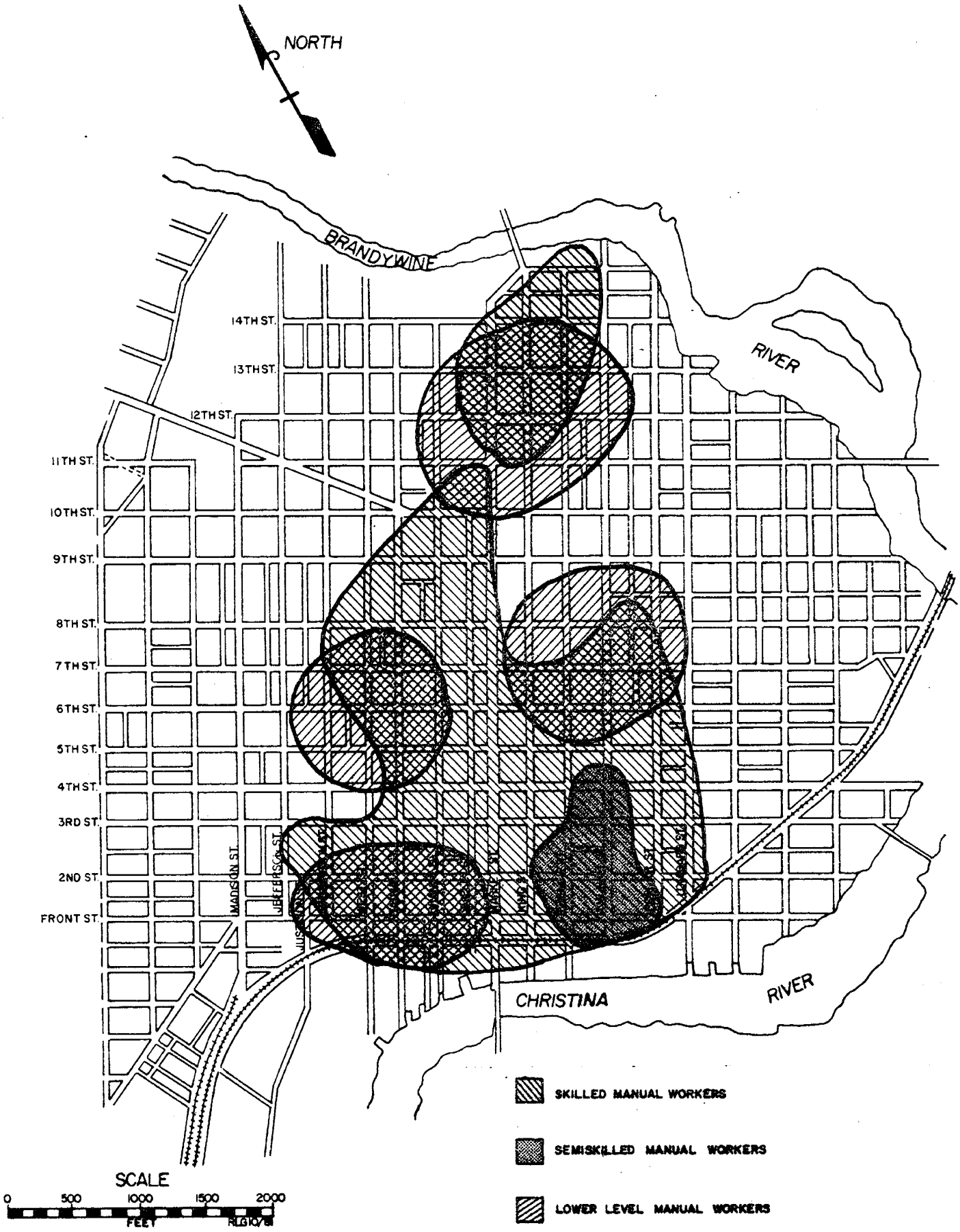


FIGURE 15
GEOGRAPHIC DISTRIBUTION
OF MANUAL WORKERS, 1845

semi-skilled workers in the 1845 directory sample also coincided roughly with lower level non-manual clerical workers.

Lower level manual workers, mostly laborers, occupied four distinct districts in 1845. One was in the area along Front and Second Streets from Market to about Jefferson Street. These persons probably were employed in the heavy industries and railroad support facilities which were growing up along the Christina, between the river and the railroad. Similarly, a cluster of these workers, living in the area near the Brandywine, were probably employed at the mills.

The other two districts of lower level manual workers residences lay just east and just west of Market Street between 5th and 8th Streets. One may safely speculate that a large portion of these individuals worked as servants of the merchants and professionals, whose residences lay between and somewhat overlapping the laborers' districts. However, these workers probably also found work with the many skilled tradesmen, tanneries, and small manufacturing enterprises which were scattered throughout Wilmington.

It is during this time period that distinct residential areas containing one type of socio-economic group, can be identified in Wilmington; in this case lower level and skilled manual workers. These residential areas, particularly those near the Brandywine, do not contain a mixture of both non-manual and manual workers, which had been the case in earlier years. Figure 15 portrays the effect of industry location in the development of manual worker residential areas.

As late as 1860 the arrangement of non-manual occupations in a linear pattern, centered on Market Street, was still visible in the directory sample (Figure 16). Upper level non-manual workers had extended slightly westward, with a new concentration of this category along West Front and West Second Streets.

Lower level non-manual workers had moved up the hillside, away from the area around French Street where they had concentrated in 1845. The new area in which this group concentrated was roughly T-shaped with axes along Seventh and Market Streets. Retailers and small merchants had extended their area of concentration as far as 13th Street, but had also begun to shift somewhat to the west of their old residential area. These people also had withdrawn from the area around French and Walnut Streets, leaving a small pocket of proprietors in the same general area as the new concentration of upper level non-manual workers. The area of small merchants which had appeared around Front and West Streets in 1845 had expanded by 1860, and a new concentration of this category had developed in the part of Wilmington known today as Quaker Hill, centered around 6th and Washington Streets.

The development of heavy industry along the Christina had a noticeable effect upon the location of concentrations of manual workers (Figure 17). The directory sample included two concentrations of manual workers which are "off the map" for this study. The incorporation of Brandywine Village addresses in the directory produced a cluster of mill workers who lived above the Brandywine. Also, a few manual workers appeared west of Madison Street, in

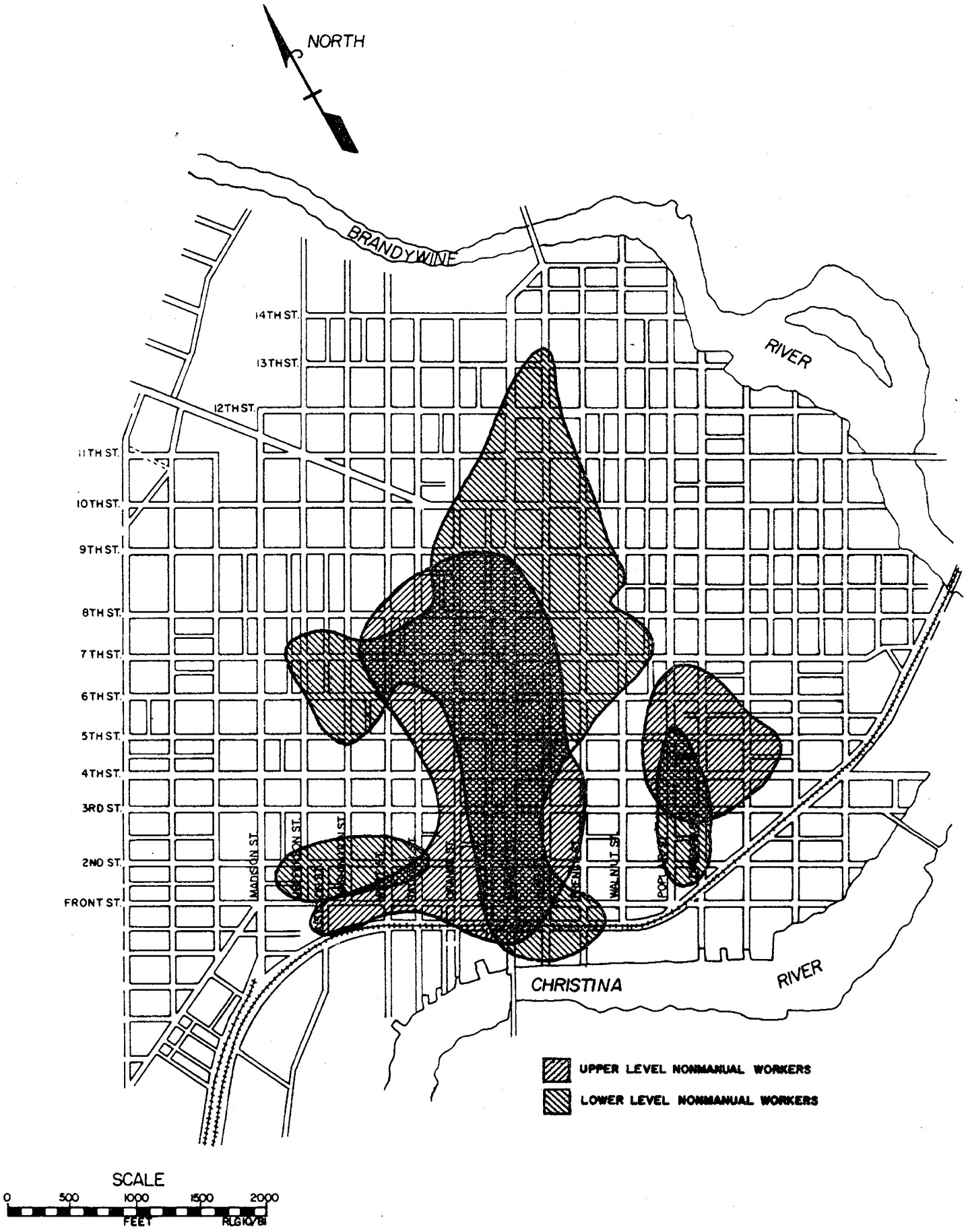


FIGURE 16
GEOGRAPHIC DISTRIBUTION OF
NONMANUAL WORKERS, 1860

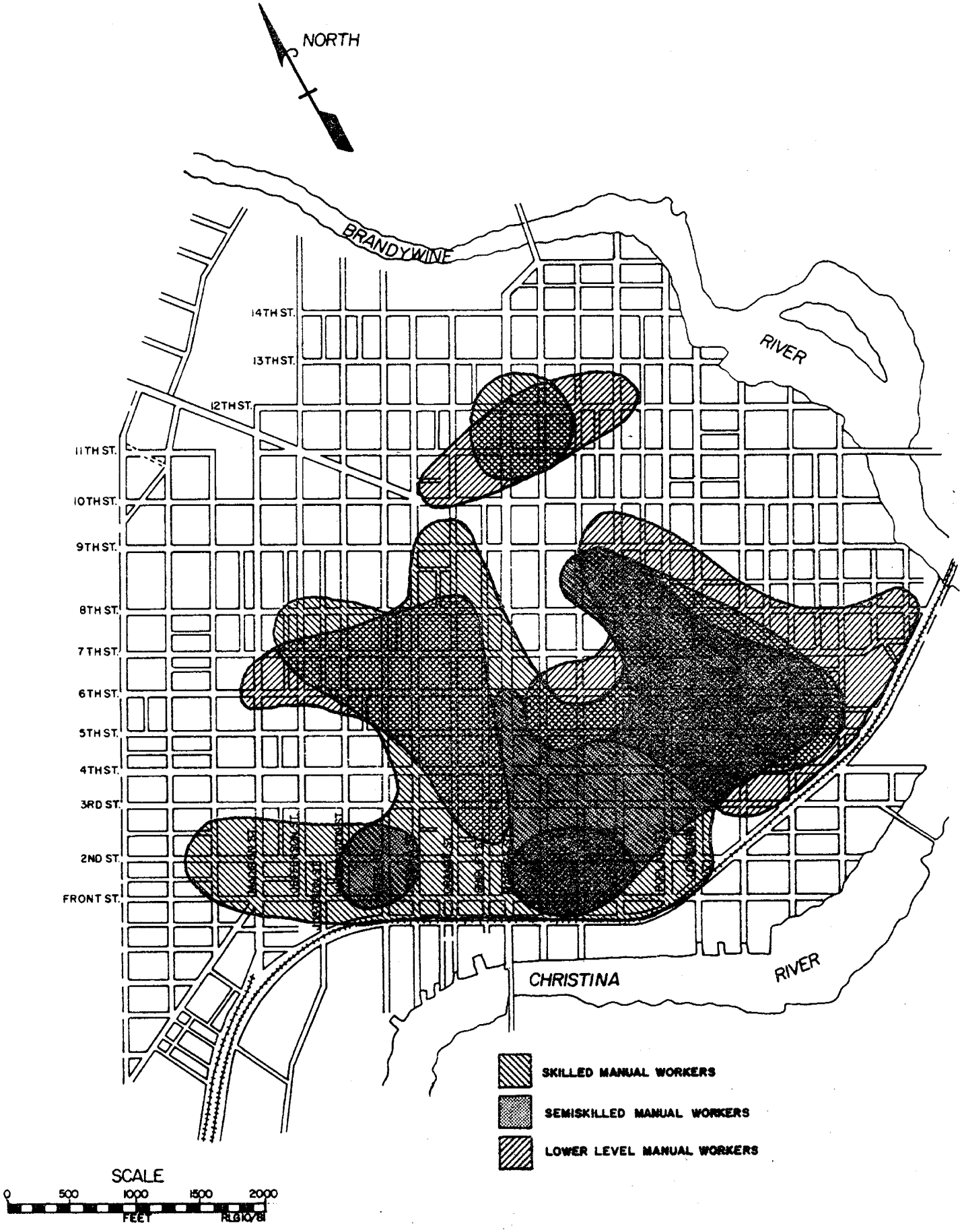


FIGURE 17
GEOGRAPHIC DISTRIBUTION
OF MANUAL WORKERS, 1860

the area of an abortive attempt at suburban development. The development of this suburb was discussed earlier.

In spite of the city's expanding geography, the bulk of manual workers in the 1860 sample still lived within Wilmington's core area. The concentration of skilled and lower level manual workers near the Brandywine had shrunk considerably, while the realignment of manual workers to the industrial area along the Christina had clearly begun by 1860. Skilled workers were no longer expanding their residences up Market Street, but they were expanding to the east and west. West of Market Street, the area occupied by skilled workers lay along Second Street and 7th Street on the east-west axis and along an axis on Orange Street about as far as 10th Street. East of Market, skilled workers spread along the railroad track about as far as Trinity Church, but did not extend any further towards the northeast.

Semi-skilled workers occupied an area almost exactly contiguous with the concentration of skilled workers east of Shipley Street. They also appeared in a small cluster around West Street, which had previously and consistently been an area of lower level manual workers. The appearance of a concentration of lower level manual workers in the area encompassing the feet of King, French, and Walnut Streets, coupled with the withdrawal of lower level non-manual workers from that area seems to mark the beginning of decline in the area near the railroad tracks. This area had always housed some laborers and other lower level manual workers, but by 1860 skilled workers and non-manual workers had largely removed themselves from these three blocks, leaving predominantly semi-skilled and lower level manual worker groups. Because these categories are underrepresented in the sample of landowners, this seems to mark a transition from owner-occupancy to tenant-occupancy in the area just to the east of the project area.

The two concentrations of lower level manual workers on either side of Market Street and centered around 6th Street expanded noticeably between 1845 and 1860. Only the most easterly and most westerly peripheries of these areas were exclusively or nearly exclusively lower level manual workers' residences, however most of these workers lived interspersed with other manual workers. Moreover, the center of town, from Water Street to 10th Street, and from Washington Street to Lombard Street contained a fairly even mixture of all occupation categories. As late as 1860, residences of people in non-manual occupations seldom clustered to the exclusion of all other occupational groups. Manual workers and laborers were more likely to cluster in blocks, which did not contain residences of persons engaged in non-manual pursuits.

By 1845, blacks had dispersed along Orange and French Streets towards the Brandywine as far as 13th Street. A scattering remained in their previous neighborhood along Front and Second Streets in the area of West Street, but the main concentrations were still in the area around the African Church and in the area along 5th, 6th, and 7th Streets between Orange and Washington Streets (U.S. Bureau of Census Population Schedules, 1800, 1830, 1840; Costa's City Directory 1855-1890).

The beginning of the Civil War saw a kind of levelling in the black population, with a decline in the proportion of skilled black workers, but also

decline in the proportion of blacks listed as lower level manual workers or without an occupation. Concurrently, there was a startling rise in the proportion of semi-skilled blacks, from 5 percent to 33 percent. Altogether, about three-quarters of this population were in the semi-skilled and lower level manual workers categories with the remainder divided between skilled worker and small merchants and no occupation (U.S. Bureau of Census Population Schedules, 1800, 1830, 1840; Costa's City Directory 1855-1890).

Later Industrial Period

During the last quarter of the nineteenth century, the development of large manufacturing industries between the Christina and the PW&B Railroad track produced a concentration of skilled and other manual workers between Front and High (now Fourth) Streets and stretching across the city from its eastern edge to its western edge. Concurrently, the frequency of land sales in the project area increased dramatically. They peaked during the 1880s and began to fall off during the 1890s when the railroad and shipbuilding industries began to slip, however slightly, into decline.

The increase in semi-skilled manual laborers in the westerly end of the area in the 1860s was accompanied by a rebuilding. Frame houses were largely (but not entirely) replaced with two-story masonry buildings. There continued to be significantly fewer owner-occupied properties in the western part of the area (New Castle County Recorder of Deeds, 1727-1860).

Economy

The refocusing of the railroad car industry from the east coast to the middle west and the maturing of the steamship industry, both of which occurred at the end of the nineteenth century, brought about some less favorable changes in Wilmington's economic base. These decreases in the city's industrial base began to be reflected in the city's geography at least as early as 1890, but they would not mature until the 1910s and 1920s, when the city became the corporate center it is today.

Water and Sewers

Wilmington did not establish a public sewer system until quite late in the nineteenth century. In the 1870s, a private sewer company was formed to serve subscribers on Market, King, and Shipley Streets as well as on the immediately adjacent cross streets about as far as 10th Street. The city, however, did not receive authority to organize and monitor sewers until 1887, and not until the early years of the twentieth century were sewers in general use throughout Wilmington. Privy cleaning became fairly sophisticated towards the end of the nineteenth century, when the "odorless excavator", a suction device mounted on a tank wagon, was put into use (Hoffecker 1981).

Population

The occupational group maps of the 1870 sample show that a distinct change in residential patterns had developed after the Civil War. There is a clear separation in the areas occupied by the non-manual classes (Figure 18). This separation may be somewhat exaggerated by a comparatively small sample size,

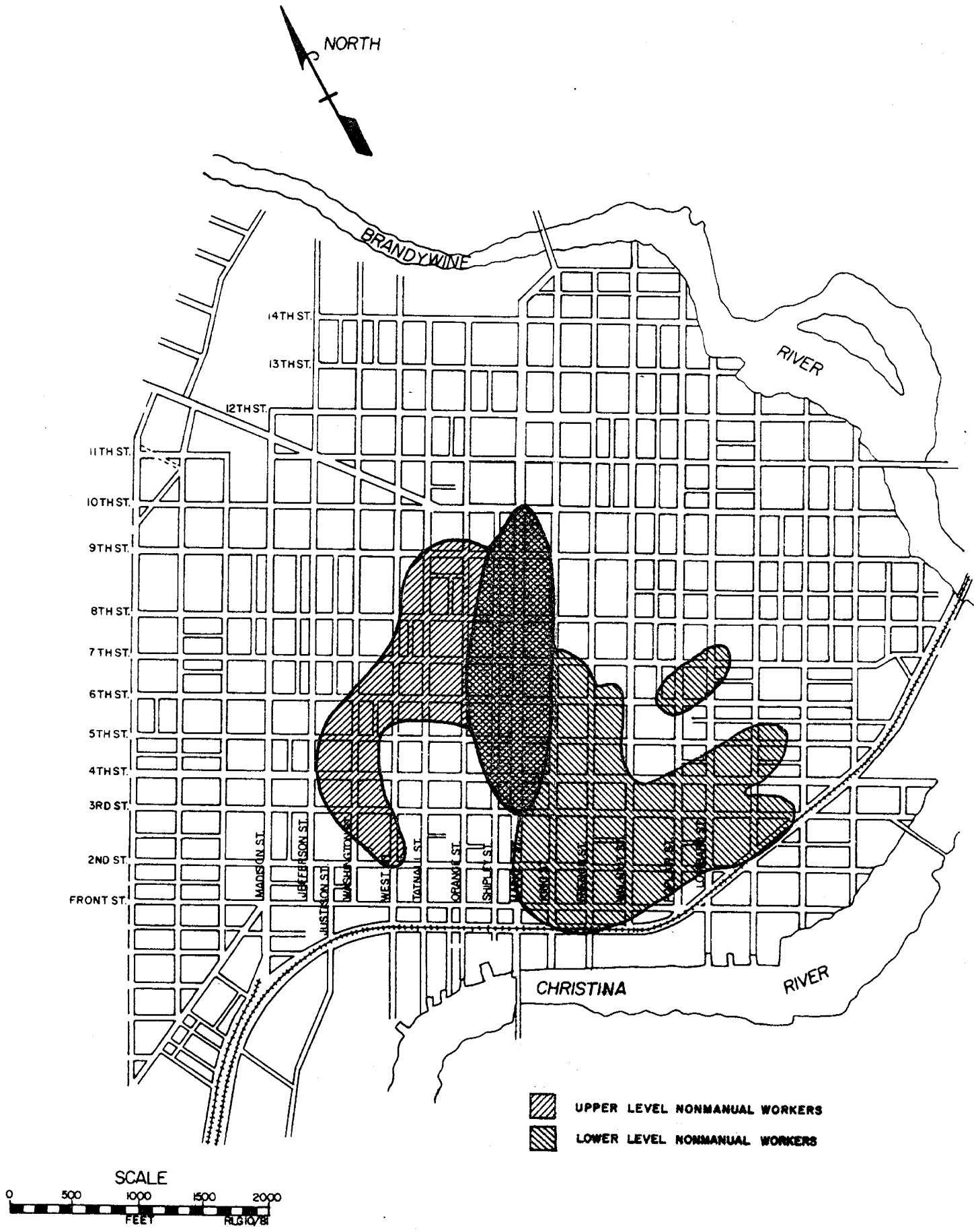


FIGURE 18
GEOGRAPHIC DISTRIBUTION OF
NONMANUAL WORKERS, 1870

but the 1870 directory states quite clearly which addresses were residential and which were not.

In the main, the upper level non-manual workers, i.e. the professionals, government officials, and prominant merchants, had concentrated along the ridge of high land which extended from the middle of Market Street to 9th Street, as far west as Jefferson Street, and as far south as Second and West Streets. None lived east of King Street.

Lower level non-manual workers, on the other hand, lived entirely east of Orange Street, and most occupied a T-shaped area with axes along King Street from Water to 7th Street and along 3rd Street from Shipley to Pine Street. A second, smaller pocket of these workers lived in the area of 7th and Poplar.

Skilled manual workers were scattered fairly evenly about the city. The outline of the area occupied by skilled manual workers (Figure 19) coincides closely with the outline of the occupied parts of Wilmington shown in the 1868 Beers Atlas (Figure 20). The Beers Atlas shows small factories dotting the city, which probably explains the dispersal of manual workers.

Curiously, semi-skilled workers appeared only in the area between Market and Madison Streets in a roughly triangular concentration with axes along 2nd and Shipley Streets. A small cluster of lower level manual workers also occupied the blocks in the westernmost end of this area. These occupation concentrations probably reflect the expansion of the Harlan and Hollingsworth and Pusey and Jones shipyards during the Civil War.

A small cluster of lower level manual workers appeared in the previously largely vacant land near Trinity Church. Their residential area lay between the city's rather large brickyards on 10th Street and several large industries which had clustered around the railroad. These industries included the Jackson and Sharp Car Works and the PB&W repair and maintenance yards.

The decades between 1870 and 1890 saw the maturing of Wilmington's urban landscape, at least with respect to the location of occupational groups. Even as late as 1870 there had been a considerable intermixture of both manual and non-manual workers, with skilled workers forming a matrix in which clusters of the other categories concentrated in definably separate areas. By 1890, however, there was a clear difference between the areas occupied by manual workers and the areas occupied by non-manual workers.

Figure 21 shows that by 1890, all of the non-manual occupations except for small retailers occupied an area that included their previous neighborhoods, but had expanded tremendously along Delaware Avenue towards the new western suburbs. Within this large area, there was not much noticeable differentiation among non-manual workers' residence locations. That suggests a possible breakdown of this rather coarse classification scheme at the end of the century, perhaps occasioned by a rise in both the number and the proportion of non-manual workers in the city. Small retailers were spread evenly in an area bounded by the railroad tracks and encompassing most of the central part of Wilmington. Their absence from Delaware Avenue is noticeable, and it points out the nearly exclusive residential character of the newly emerging suburbs.

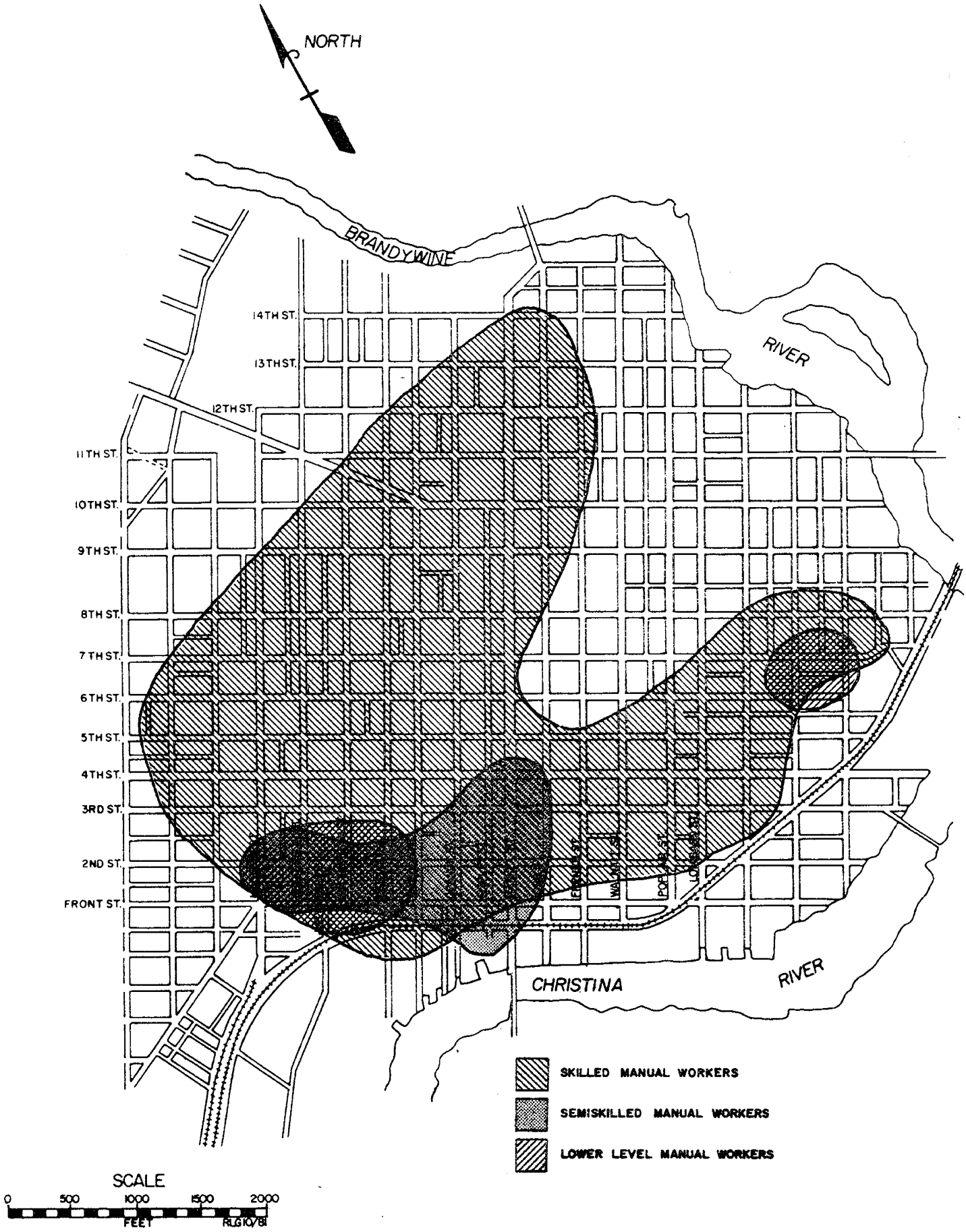


FIGURE 19
GEOGRAPHIC DISTRIBUTION
OF MANUAL WORKERS, 1870

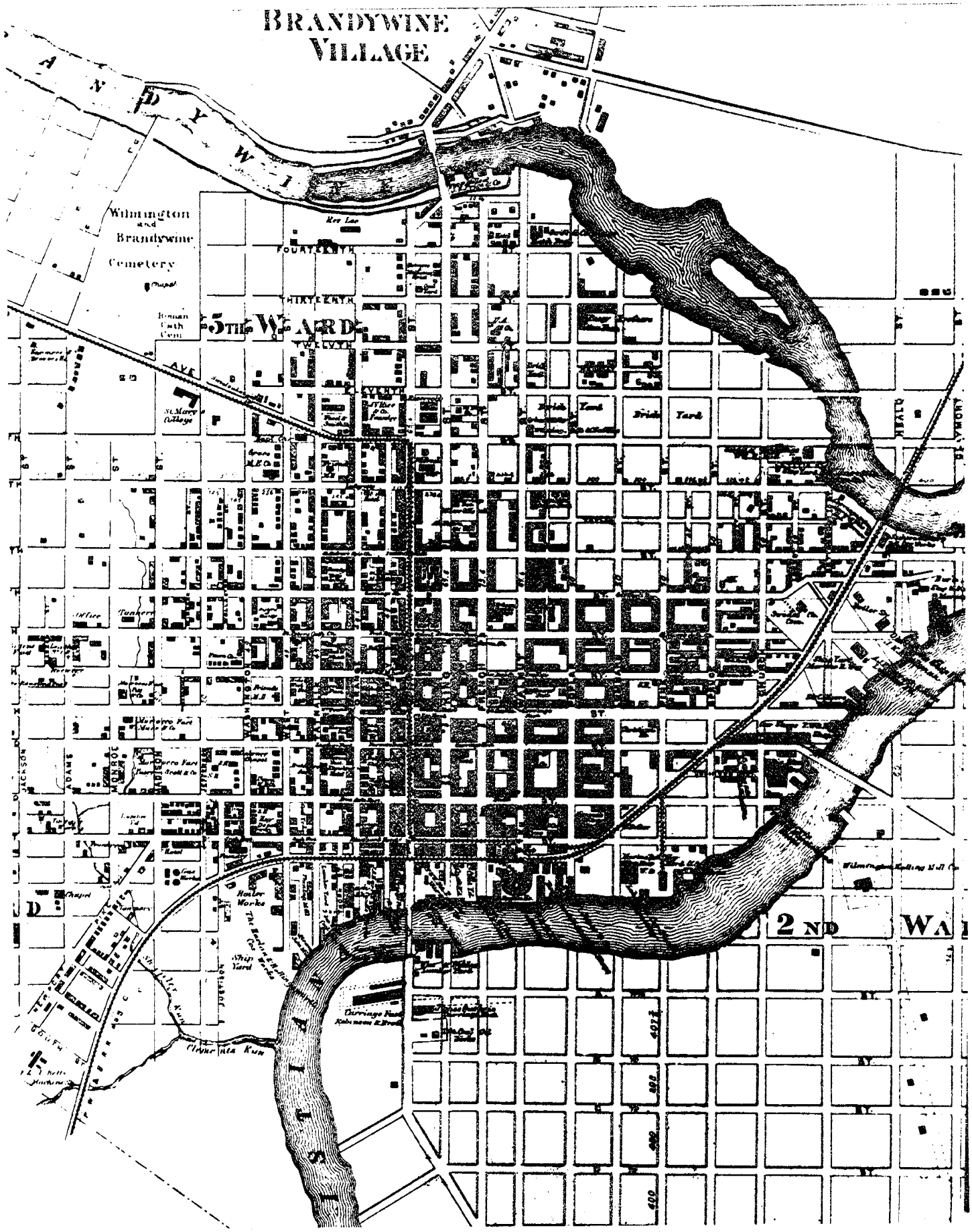


FIGURE 20
BEERS ATLAS OF WILMINGTON,
1868

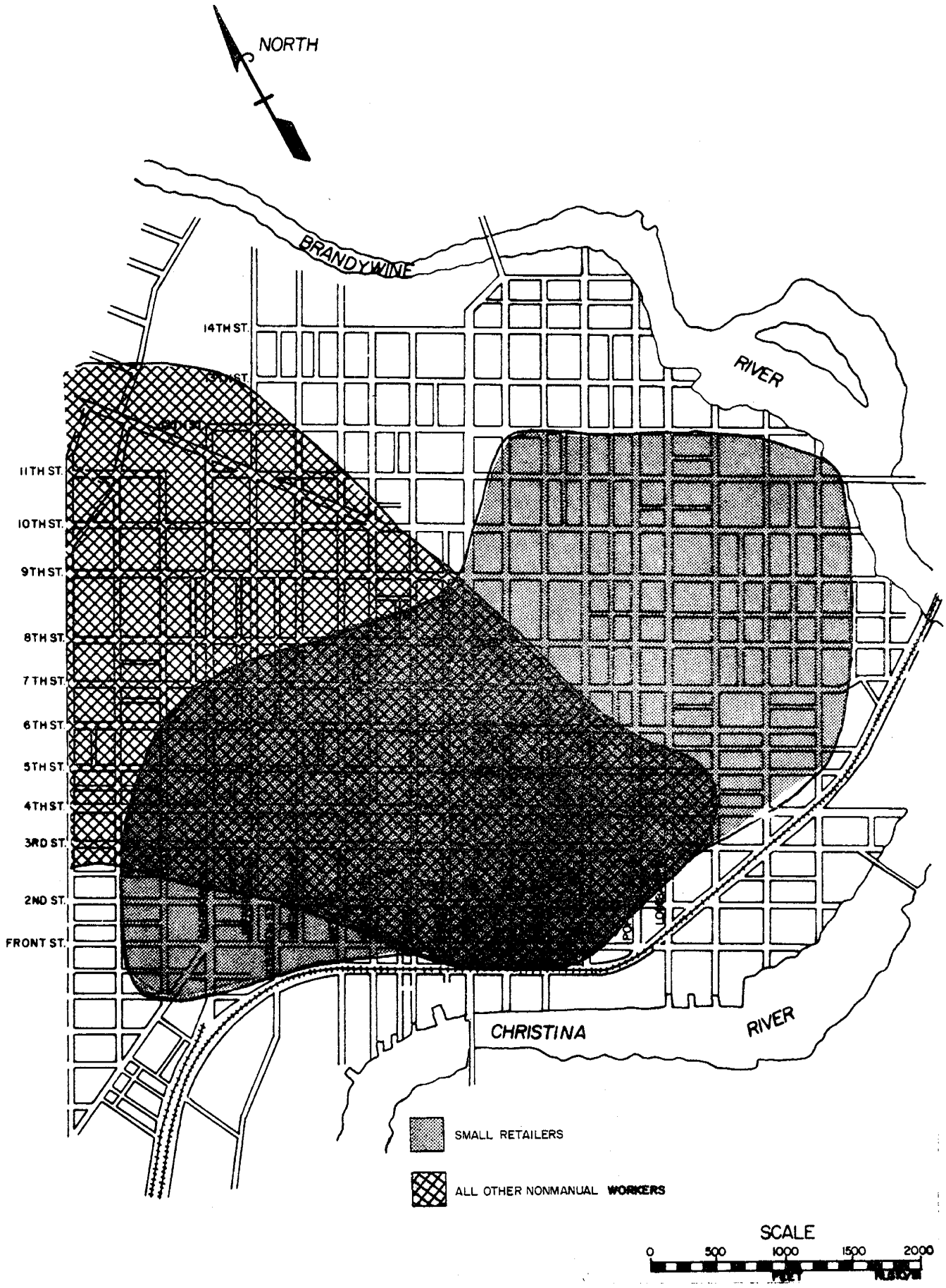


FIGURE 21
GEOGRAPHIC DISTRIBUTION OF
NONMANUAL WORKERS, 1890

Manual workers' residential areas show even more change (Figure 22). Approximately three-quarters of the manual workers in the sample, including all the semi-skilled and lower level manual workers, lived within about a quarter-mile of the railroad. Less than 10 percent of the skilled workers in the samples lived in the suburbs or in Brandywine Village, but there was a scattering of this category through the middle part of Wilmington. Semi-skilled workers appeared in two pockets on the eastern and western end of the skilled workers residential area on what was probably less desirable low ground or steep hillside. Only one pocket of lower level manual workers appeared in this sample, at the far west end of the area beyond Justison Street.

This change in residential patterns is directly attributable to the rapid growth of heavy industry along the Christina after the Civil War. In 1880, four major manufacturers employed approximately half the work force, although there were 156 shops in Wilmington which employed ten or fewer hands. These big industries were located in the area between the Christina and the railroad tracks, and their workforce lived nearby.

Manual workers, especially skilled workers, consistently occupied a geographically larger area than any other category until some time between 1870 and 1890. The higher-status categories of non-manual workers tended to concentrate on Market Street, not dispersing from that alignment until the beginning of the period of heavy industrialization after the Civil War. They tended to concentrate on the most desirable land, near the main business artery on land that was neither too wet nor too steep. After 1890, however, non-manual workers were widely dispersed through Wilmington, with the upper level non-manual workers living generally west of Market Street and north of Fourth Street.

After the Civil War, Wilmington attracted sizeable communities of eastern Europeans and Italians (Munroe 1979:216-218). Many of the immigrants and almost all of the blacks concentrated in the occupational categories of skilled worker and below. Blacks in the 1870 directory sample appeared in only two occupational categories: unskilled and unemployed.

The black households represented in the 1860 and 1870 directory samples do not appear to describe exclusively black ghettos. Yet the samples make clear that the social and economic changes, which accompanied the Civil War affected black residential patterns in Wilmington. In 1860 there were almost no blacks living along Front and Second Streets where they had been a noticeable minority in the early nineteenth century. This population had moved to the area above 4th Street and were spread in a band across the city from Trinity Church to Orange Street. A new concentration had formed on Orange between 10th and 11th Streets and on 7th Street near Trinity Church.

By 1870, there were virtually no blacks living along the ridge on the west side of Wilmington. Black residences lay in a loosely described crescent along the northeastern perimeter of the inhabited part of town in 1870, from Trinity Church to the foot of Delaware Avenue. This was largely low ground, and near to the city's brick yards and the railroad yards.

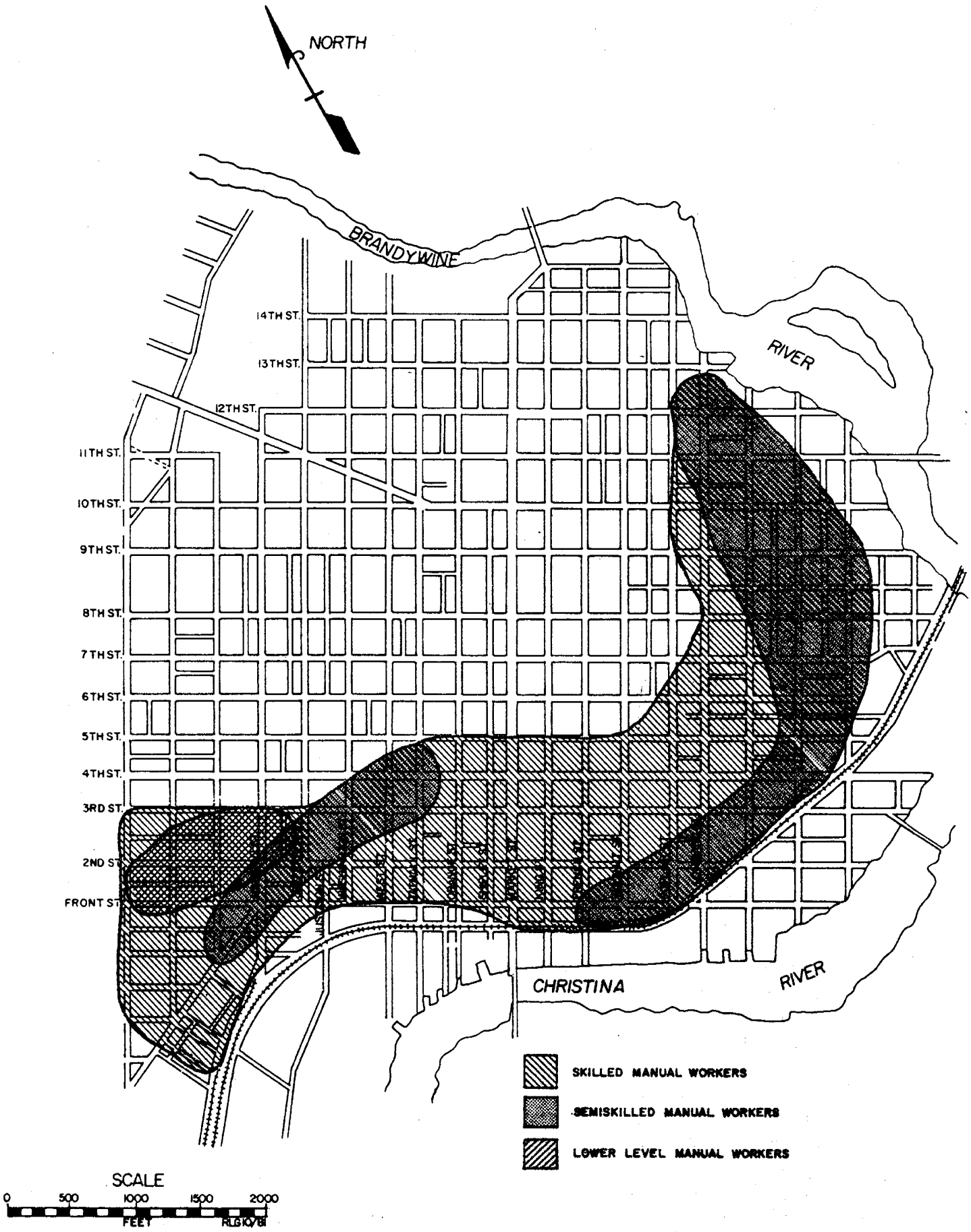


FIGURE 22
GEOGRAPHIC DISTRIBUTION
OF MANUAL WORKERS, 1890

Conclusions

Periodization

The reduction of time spans to periods is a traditional abstraction in historical analysis. Periodization facilitates the isolation of certain causes and effects, but like any abstraction, the use of historical periods sacrifices some accuracy in fact for clarity in analysis. The biggest problem in determining periodization is one of the choice of the measure. Events occur in simultaneous but different contexts. These contexts may or may not have anything to do with one another.

When one considers a single context, such as economics, it is fairly easy to determine major points of change. When dealing with a complex phenomenon such as the life of a city, true points of change are difficult to determine.

Frontier and Mercantile Periods

The course of events in Wilmington's history suggests a somewhat different breakdown of time than the project's original hypotheses postulate. Particularly in the case of the "frontier" and "mercantile" periods, the distinction seems to be unsubstantiated by the documentary record. There never was a period of sparse settlement, for the part of Wilmington which was recognizable as a town was settled almost to maximum density by 1740, the date of the borough charter. Sparse settlement was a characteristic of the periphery of the town, and settlement became gradually denser in the former peripheral areas as the town expanded in size. Speculative subdivision of large initial holdings in all periods was usually completed within the lifetime of the original speculator, and if not, it was almost always complete within a few years after the original speculator's death as heirs sold off the estate.

There is nothing in Wilmington's internal organization which would distinguish between a frontier and mercantile period. Even the market houses fell well into the postulated frontier period. Moreover, there was no change in the form or procedures of town government through most of the eighteenth century, and no change in the Borough's economic base until long after the Revolution.

In recent geographical studies of the function of cities on the Ohio frontier in the early nineteenth century, several authors have pointed out that the purpose of frontier cities is in fact mercantile: their only purpose was the gathering and dispersal of local raw products, and the importation and dispersal into the countryside of finished goods (Muller 1973). These "frontier" cities grew up very quickly, just as Wilmington did a hundred years earlier.

Moreover, there is little in Wilmington's relationship to its hinterland that would permit distinction between frontier and mercantile periods. From the beginning, Wilmington served as the central place for the countryside of upper New Castle County, but was in turn subsidiary to Philadelphia. Wilmington's hinterland was distorted by both the location of major geological features, particularly the edge of the piedmont, and by its close proximity to Philadelphia. That hinterland remained unchanged until the transportation

revolution of the first half of the nineteenth century. Afterwards, Wilmington served a more restricted area, but one in which the general northwestward emphasis was still visible.

Industrial Period

Documentary evidence supports the part of the second hypothesis which postulates that a major change took place in Wilmington's pace of life at the turn of the nineteenth century. Concurrent changes in human geography, economy, and governmental organization underscore the pervasiveness of the shift which occurred in Wilmington at that time.

The evidence does suggest that the third postulated period of Wilmington's growth was more complex than was initially expected. In terms of economic, governmental, and spatial organization, the "industrial" period divides into three subperiods: (a) an early industrial period, perhaps more accurately called the manufacturing period, which lasted from the last decade of the eighteenth century until the middle of the 1830s; (b) a middle period which lasted from the rechartering of Wilmington as a city and the building of the railroad until the end of the third quarter of the nineteenth century and during which industrialization increased; and (c) a mature industrial period, which lasted from the end of the Reconstruction years until at least the turn of the century and very possibly until the early years of the twentieth century, when Wilmington became the corporate city of today.

The beginnings of early industry in Wilmington coincided with other changes not necessarily derived from the appearance of industry, but which show the kinds of sophistication of management and planning that were suited to large manufacturing enterprises. The first town budget was adopted, and the method of determining projected town revenues was rationalized. The Town Hall was built, and management of town facilities devolved upon standing committees of the Borough government, rather than upon ad hoc committees as had been the case in previous years. Agitation for a new charter containing home rule provisions began during these years.

Other changes were more directly attributable to the onset of large-scale manufacturing in the Brandywine Valley. The growth of Brandywine Village, and the expansion of Wilmington along Market Street towards that town was one effect of industry. The opening of a bridge across the Christina in the early 1800s marked a new relationship between Wilmington and the rest of New Castle County, while the building of a major bridge across the Brandywine at about the same time underscored the importance of the new manufactories to Wilmington's economy. The city grew physically at this time, and for the first time it began to spread beyond the natural geographic boundaries of a steep hill on the west and marshes on the east.

Wilmington's nearly concurrent acquisition of formal recognition as a city (1832) and of railroad connections to the rest of the Eastern Seaboard (1837) marked a second turning point for the nineteenth century city. The city charter was perhaps most important as a symbol of Wilmington's maturity, but the railroad created new geographical and economic circumstances which altered the shape of Wilmington's growth. The land along the Christina, which housed the city's languishing shipping trade, became valuable again as

industrial sites. While Wilmingtonians did not abandon seaborne trade as an enterprise, shipping was a minor activity after this time. Its place was taken by heavy industry, especially railroad maintenance, shipbuilding, and related heavy industry. A lively carriage-building industry developed which took advantage of ready sources of supply and transportation to the product's Southern market (Hoffecker 1974:23-25).

Mature Industrial Period

After approximately 1870, Wilmington's products were shipped around the world, and better than half of the working force worked for four big companies along the Christina. The first attempts at deliberate suburban development took place in the late 1860s, with the laying out of "Washington Village". This development failed, but in the next decade, Wilmington's major suburban avenues, Delaware and Pennsylvania Avenues, grew up with large, elaborate homes.

During the last quarter of the nineteenth century, Wilmingtonians actively took an interest in public services. The municipal sewer system was developed out of the merger of several private sewer companies, and the water system was extended to almost all parts of the city. Most of Wilmington's major private civic institutions were formed during this period as well. The Bancrofts, an old textile manufacturing family, sponsored the development of the city's first parks and museums. Wilmington also finally became the county seat of New Castle County, a position which it had coveted for decades.

A major shift in Wilmington's social geography also occurred during the last quarter of the nineteenth century. As has been shown above, by 1890, the residential pattern had changed from a general intermixture of white and blue-collar workers to one in which almost all of the manual workers lived near the industrial center along the railroad. This was in spite of the fact that an effective street railway ran from the foot of Market Street to the suburban areas along Delaware and Pennsylvania Avenues. Also there was clear racial segregation during this period, and evidence suggests some less well-defined ethnic segregation as well.

In light of the historical evidence, we postulate a new scheme of periodization for Wilmington during the time span with which this project is concerned. This scheme contains two major and five minor divisions as follows:

A) Mercantile Period, 1735-1790
   1) Settlement period, 1735-1740
   2) Market Center period, 1740-1790

B) Industrial Period, 1790-1890+
   1) Manufacturing period, 1790-1837
   2) Early Industrial period, 1837-1870
   3) Mature Industrial period, 1870-1890+

A full scheme should also include a third, corporate period which seems to have developed after the Depression of the 1890s, and the development of

Wilmington as a major corporate headquarters city, but those years are beyond the scope of this study.

The Hypotheses

This suggested alternative scheme of periodization should have some substantive effect on the hypotheses, particularly as they are concerned with demarcation between the postulated "frontier" and "mercantile" periods. They should not, however, preclude assessing the general processes described in the hypotheses in terms of the historical data.

> Hypothesis 1: That the density of occupation will rise gradually, from a thinly settled "frontier" community, reaching a peak at the beginning of the industrial period in the early nineteenth century, after which it will stabilize.

Occupation density at least in terms of land division did not seem to follow the hypothesized pattern. Land division proved to be more complex than first assumed, and several kinds of speculative ownership were detected. Primary subdivison was the initial breaking up of large tracts into smaller units. These units consisted of both town lots and middle-sized speculative holdings of up to several acres in area. This is the kind of land division in which early purchasers of land in Wilmington engaged, but it was not limited to the period of initial settlement. Primary subdivision of this type continued throughout the study period on the periphery of town.

Secondary subdivision occurred with the breaking up of the larger town properties into standard town lots, which in Wilmington were about 20 feet wide by approximately 100 feet long. Secondary subdivision usually took place within a few years of primary subdivision, but sometimes lots were not divided until the second generation of ownership, when the heirs to a large piece of land sold off their inheritance. Occasionally, tertiary subdivision occurred with town lots being subdivided into very small lots, but neither further subdivision nor the recombination of small parcels into larger ones normally resulted in the obliteration of major property lines.

The period of initial settlement was marked by large landholdings, most of which were immediately broken up into individual building lots. There was very little secondary subdivision, and almost all of that was confined to action by the heirs of the original large-lot purchasers. However, all kinds of subdivision seem to have been present in Wilmington at all times following the first lot sales in the early 1730s. Primary subdivision occurred as the city's periphery expanded, and tended to take place in areas with some geographic advantage: access to the Brandywine water power or to a road, or location on well-drained upland on Wilmington's westerly side.

Secondary subdivision, when it did occur, was usually complete well within 20 years of the initial subdivision of peripheral tracts. The pace at which a block matured was dependent on the rate of expansion of the city in the area around that block. Secondary subdivision did not take place in areas where the city did not expand. The blocks within the project area between West and Justison Streets were largely peripheral in character until the second quarter of the nineteenth century. They also were not heavily divided until

the mid-1830s and later, after Wilmington had begun to expand to the west along the Christina. The long duration of large lots in this area underscores the peripheral, and not the frontier, nature of the presence of large landholdings.

There are not enough data from the eighteenth century to establish density in terms of tenancy for Wilmington's early years. For the nineteenth century, tenancy information was gathered for the project area only. Those data suggest that occupation by tenant tended to be denser than occupation by landowner, and that residential density increased throughout the nineteenth century. (This will be explored further in the discussion of Hypothesis 3, below). Use density did not really stabilize, however. In the 1814 directory, there were 124 households listed on four selected blocks within the project area. In 1845, there were only 85 households on those same blocks, and in 1890, there were 175 households. Only a very few addresses seem to have been multiple family dwellings, so the blocks do not seem to have achieved saturation.

Ownership density was established almost from the beginning of Wilmington's history, and only in the anomalous western end of the project area was there secondary subdivision at a comparatively late date. Occupation distributions fluctuated considerably and may never have stabilized across the whole project area for more than a few years at a time.

> Hypothesis 2: That mixed land use will predominate during the "frontier" period, with a steadily increasing occurrence of single use properties interspersed among one another, followed by the gradual disappearance of residential properties from the city's core area by the end of the industrial period.

The near absence of mention of single-use buildings in early land deeds in Wilmington is not proof that most buildings were mixed-use in nature, but the fact that buildings of specific use were occasionally mentioned strongly suggests that they were not the norm. In eighteenth century land documents relating to the project area, there was mention of a hotel and a smith's shop, and a few buildings were specified as dwelling houses. Otherwise, no special mention was made of the buildings' functions.

The 1814 and 1845 directories did not indicate which residents had their place of business at their residential address, but both directories did list proprietors of businesses by separate residence and business addresses when they were not the same place. These are a distinct minority of the listings, so the common pattern at least until mid-century seems to have been for proprietors to conduct their business at their place of residence. Still, that does not necessarily mean that the business and the residence were housed in the same building. The 1845 assessment indicates that there was a substantial minority of single-use buildings on multiple-use lots within the project area. These buildings were not evenly distributed, but tended to be on the Front Street face of the blocks. Thus, through the middle of the nineteenth century at least, the evidence for a growing tendency towards single-use properties is inconclusive but tends to suggest that some rudimentary segregation of business and residence was taking place.

This picture changed after the Civil War when there was a noticeable change in both occupational and racial distribution across the urban landscape. By 1870 a substantial number of skilled workers were noted in the directories as working in a place other than where they lived. These years were the heyday of the heavy industries along the Christina, and those industries among them employed more than half of Wilmington's work force. On the other hand, it is important to remember that small businesses with ten or fewer workers employed a majority of the remainder.

It seems clear that by 1890, the common practice was for people to live and work in separate places. The project area, however, retained a large proportion of residential properties. Although the change from mixed land use to commercial/industrial properties began in the project area before the middle of the nineteenth century, the change was far from complete by 1890.

> Hypothesis 3: That occupants during the frontier period will be identifiable primarily as persons of middle and upper socio-economic levels, but that during the mercantile period, persons of lower socio-economic levels will both aggregate in the periphery of the area and be intermixed with other groups in the project area proper. Through the industrial period, these people will gradually displace the upper socio-economic level residents near Market Street.

The relationship between tenancy and socio-economic level was not as clear-cut as had originally been thought. There were enough residents of middle or higher occupational categories who rented property, and enough of those of fairly lower socio-economic levels who owned property, that the condition of tenancy alone does not seem to be a very reliable indicator of socio-economic position in Wilmington's early years.

If one considers only the severely truncated "frontier" period described in the beginning of this chapter, then the first part of this hypothesis holds. All of the first landowners who have been identified either had skilled trades or were merchants or professionals of some substance. Through the entire study period, landowners throughout the city tended to be persons of middle or higher socio-economic levels.

There are not enough eighteenth century data on tenancy, however, to establish to what degree these first landholders rented lots to persons of lesser means. One deed to a lot between Market and King Streets on Second specified that the lot was under lease as early as the mid-1730s, and in the late eighteenth century the Borough council condemned the use of stables on that same block as tenements. Otherwise, the only available information for the "frontier" and "mercantile" periods concerns landowners, who do not constitute a full sample. Data for the nineteenth century are better, for it is possible to compare residence locations from the directories with ownership data from the lots. Also, the 1845 assessment can be compared directly with the 1845 directory, giving a clear picture of ownership patterns. This was done for the project area only. Information on tenancy within the project area suggest that tenant occupation tended to be denser than landowner occupation on the westerly end of the project area, but not on the easterly end. The maps of residential areas of the city, by occupation, show a clustering of the upper level non-manual workers around Market through Orange Streets,

and of the lower level occupations on King Street and generally west of Shipley Street. Elizabeth Montgomery (1851), in her memoirs, described Market Street as a high-status neighborhood. Thus, there is somewhat of a correlation between landowner occupation and upper level groups, and between lower level groups and tenant occupations. Nonetheless, the broad interspersal of members of all occupational categories derived from the 1814 directory indicates that even as late as the manufacturing period, residential segregation by occupational group, within the city, was fairly weak.

Some of the very high socio-economic level residents left Market Street within the project area around the turn of the nineteenth century. These included the family of Jacob Broom, signer of the Constitution, and Dr. Nicholas Way, a physician who was fairly active in local politics. Other mercantile families who owned Market Street property but who did not live there sold their land as well. Still, Market Street retained much of its previous character, at least in terms of land value and services relative to the rest of the project area. The Wilmington Spring Water Company installed piped water on Market Street in 1804, long before that service was available to the rest of the project area, and most of Market Street was included in the private sewer company franchises of the later nineteenth century. Moreover, in the 1845 assessment, properties on Market Street were significantly more valuable than were properties on any other street within the project area.

The 1845 assessment indicated a change in the resident locations of manual workers. For the first time in Wilmington's history, there were distinct residential clusters of skilled and lower level manual workers that did not contain non-manual workers. This took place in the area of the Brandywine. The appearance of this residential area was probably due to the increased industrialization of the Brandywine mills and factories. This type of residential area only occurred near the Brandywine and was not evident in the project area proper.

Between the end of the Civil War and 1890, there was noticeable levelling of socio-economic group characteristics across the project area as a whole. The peripheral residential areas of individuals of low socio-economic status moved beyond the limits of the project area, and the blocks between Justison Street and West Street were redeveloped as working-class residential blocks with some old frame houses replaced by larger masonry ones. Market Street properties housed significantly fewer managerial and professional people. This levelling accompanied several other major shifts in Wilmington's social and physical structure, including (a) the establishment of suburbs; (b) the maturing of the heavy industries on the Christina; (c) the diminishing and near-disappearance of the craft-artisan shop; (d) realignment in the relationship between the middle level occupation categories of skilled worker and lower level non-manual worker; and (e) an influx of immigrants from Eastern and Southern Europe. As has been shown (Figure 22), by the end of the study period there was an almost solid manual band of workers occupying the blocks nearest the railroad, from the east to the west side of town.

General Conclusions

Certain of the hypotheses and assumptions about Wilmington are clearly not supported by the documentary data. The posited scheme of periodization is

arguable, but it does not seem to be crucial except in terms of the demarcation between the "frontier" and "mercantile" periods. Of more importance is the persistence of a relatively undifferentiated pre-industrial city, with clear but fairly gentle gradations of neighborhood and almost no exclusive economically defined zones. The little enclaves of free blacks which existed in the early and middle nineteenth century coincided closely with general concentrations of semi-skilled and lower level manual workers, and did not constitute exclusive black zones of any consequence. Casual evidence suggests that the two areas of alley housing in the project area, Milner's Court and Lafayette Street, were mostly or exclusively white neighborhoods, even well after the Civil War when alley housing in other border-state cities had become largely or exclusively black.

There was always a mixture of commerce, industry, and residences in the project area. Even as late as the 1880s and 1890s, stores, warehouses, and small factories engaging in relatively clean industry such as lumber milling existed side-by-side with working-class housing. The change to emphasis on small industry and commercial use seems to have come after the third major change in Wilmington's economic base, from an industrial city to a corporate city providing white collar services to corporate head offices. That change took place around the turn of the twentieth century.